New Orleans Medical
and
Surgical Journal

Vol. 79 MARCH, 1927 No. 9

PRURITUS ANI AND PRURITUS VULVAE OF FUNGAL ORIGIN.

ALDO CASTELLANI, M. D.,
Professor of Tropical Medicine, Tulane University
NEW ORLEANS.

Pruritus ani of fungal origin, which I described as a separate entity some years ago, is little known, though in my experience of fairly common occurrence; no description of it is given in text books, and even in very recent papers on pruritus ani it is not mentioned, although the so-called bacterial pruritus ani (streptococcus pruritus ani) is often discussed.

DEFINITION.

Mycotic (phycotic) pruritus ani is a form of pruritus ani caused by fungi higher than bacteria (mycetes, higher fungi), generally fungi of the genus Epidermophyton, the same fungi which cause pruritus interdigitalis pedum (toe phytosis, dermatitis interdigitalis mycotica, mango toe), and also ordinary dhobie itch or tinea cruris, or epidermophytosis inguinalis. The condition is, in fact, as a rule, a form of latent epidermophytosis of the anoperianal region without the usual objective symptoms.

SYNONYMS.

Phycotic pruritus ani, mycetic pruritus ani, mycotic prutitus ani, fungal pruritus ani, pruritus ani due to the higher fungi, piedermophyton pruritus ani.

Clinical Symptoms.—The patient complains of very severe pruritus, not, as a rule, continuous, but at intervals. The pruritus is often worse at night, but the attacks of unbearable itching may come on at any time. The inspection of the anoperineal region in very recent cases may reveal nothing at all except, perhaps, signs of scratching, but in most cases, on careful examination, minute red, slightly raised, infiltrated patches may be seen in the perianal region, occasionally arranged into two curved lines. In a number of old cases signs of dry or moist exzematous dermatitis are present, and streptococcus and other secondary bacterial infections may become engrafted on the mycotic condition. In some old-standing cases the skin is thickened, lichenified, and presents the picture of the so-called eczema ani chronicum of old authors. When the secondary bacterial infection becomes very heavy, especially if many coli and proteus bacilli are present, the fungus may disappear completely or become extremely scarce.

ILLUSTRATIVE CASES.

Case 1 (uncomplicated type).—This case has already been published by me in the "Journal of Tropical Medicine." The patient, a Ceylon planter, came to consult me in October, 1924. He had been suffering from anal pruritus for six years, and had tried numerous ointments and lotions without any permanent benefit. He denied ever having had dhobie itch or mango toe (epidermophytosis interdigitalis pedum). The examination of the ano-perianal region did not show anything abnormal, except on close examination a very few minute red patches which did not give the impression of an epidermophytic infection; no

lesions of any kind were found in the scroto-inguinal regions. Scrapings were made every other day for two weeks, and were examined microscopically in liquor potassae; they were always negative except on one occasion, when a few spores and portions of mycelial threads were seen. After many failures a fungus was grown with all the characteristics of epidermophyton cruris. An ointment containing salicylic acid, eucalyptus oil, mercury salicylate, bismuth subnitrate (Deek's ointment), cured the condition.

Case 2.—Mr. A. G., aged 40, has never been out of Europe. Came to consult me in February, 1925. Six years before began complaining of pruritus ani, and after a sojourn of several months in the south of France, was treated with various ointments without any distinct benefit. At the time he consulted me the skin about the anus was red and somewhat thickened. The inspection of the inguino-crural region showed absence of dhobie itch, and the patient denied ever having had it. On questioning him I elicited the fact that he had been suffering from pruritus interdigitalis pedum for several years; inspection of the toes showed a few cracks and slight desquamation. From scrapings of the toes I obtained epidermophyton cruris fairly easily, but scrapings from the ano-perianal region, made and examined daily, remained negative for nineteen days, when a few mycelium segments of a fungus were found. The fungus was grown with very great difficulty owing to the presence of numerous cocci and bacilli, and found to be E. cruris. In this case, a sulphur salicylic ointment and a tar ointment answered well.

Case 3.—Mr. N. B., aged 25, has been in the Far East for three years. He consulted me in November, 1924. Had dhobie itch two years previously, which, he says, was cured by a Goa powder ointment. For six months previous to the time I saw him he had severe pruritus ani. Examination of the ano-perianal region showed nothing except signs of scratching. After many attempts E. cruris was grown.

Case 4.—Young woman, English, a planter's wife, while in Ceylon developed severe pruritus ani which did not answer to any therapeutic measure. Came from the tropics to London to the beginning of November, 1925, and consulted me a few days after her arrival. In the perianal region several minute red patches were present. Scrapings revealed presence of spore-like bodies and a few mycelial segments. The fungus on cultivation was found to be E. rubrum. Deek's ointment cured the condition.

Case 5.—Mr. F. M., Englishman, 22 years of age, has never resided in tropical countries. In August, 1925, consulted me for typical T. cruris (dhobie itch), localized to the inguino-scrotal region. The ano-perianal region was not affected, and the patient did not complain of prutitus ani, but only of severe pruritus in the inguinal region. Under an appropriate treatment all the symptoms disappeared. He came to consult me again very recently (May, 1926), complaining solely of intense anal pruritus. The skin of the inguinal and scroto-crural region was absolutely normal, and there was no pruritus. The ano-perianal region showed an eczematous dermatitis with redness and slight scaling, but with no festooned appearance of an ordinary case of dhobie itch; in fact, but for the history of previous T. cruris nothing pointed to a mycotic dermatitis. E. rubrum was grown, and all the symptoms disappeared by using the following ointment: Acid salicy. gr. 30; sulphur pr. gr. 30; vaseline 1 oz.

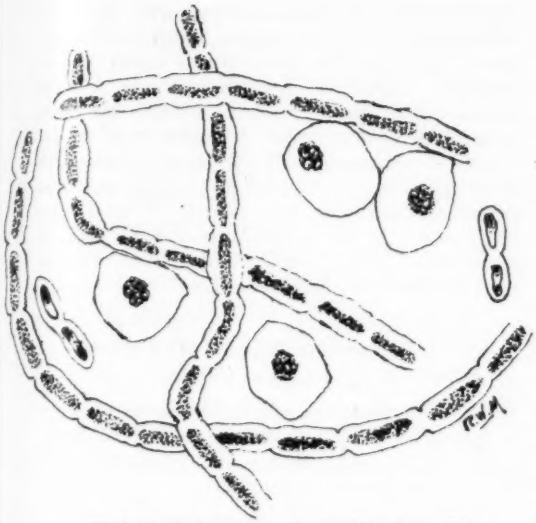
Case 6.—Italian, has been in the States for twenty years. Does not give any history pointing to Tinea cruris. For the last ten years he has been suffering off and on from exceedingly severe pruritus ani. Came to consult me in April, 1926. The skin of the perianal region was thickened, lichenified. The microscopic examination of scrapings showed presence of a few mycelial segments and spore-like bodies. The fungus on cultivation was found to be very similar to Epidermophyton cruris. The sulphur salicylate ointment induced a great improvement in the condition. I do not know the ultimate result as in May I left for Europe.

AETIOLOGY.

The cause of the condition is generally to be found in the presence of the fungi of the genus Epidermophyton, the same fungi which produce ordinary tinea cruris (dhobie itch, Tinea inguinalis, Epidermophytosis inguinalis), and pruritus interdigitalis pedum; occasionally fungi of the genus trichophyton may be present. The species of epidermophyton found have been E. cruris and E. rubrum; yeast-like fungi are also often present, but I doubt whether they play an important aetiological role. It may, perhaps, be useful to touch briefly upon the botanical characters of epidermophyton fungi, trichophyton fungi, and yeast-like fungi.

GENUS EPIDERMOPHYTON, LANG, 1879, EMENDAVIT SABOURAUD, 1907.

Definition.—Trichophytinae with mycelial filaments and spores present in the lesions, and with pluri-septate spindles present in the cultures. Do



Epidermophyton cruris, in scraping from skin.

not attack the hair or hair follicles, but grow in the superficial layers of the epidermis.

Type Species.—Epidermophyton cruris Castellani, 1915 (synonyms: E. inguinalis, Sabouraud, 1907; E. castellanii, Brooke, 1908).

REMARKS.

The fungi belonging to this genus grow superficially on the skin without invading the hairs and hair follicles, certain authorities, however, state that they may infect lanugo hair; do not produce suppuration. Reproduction takes place principally by pluri-septate spindles or macroconidia, with, on the average, four to six cells. The septa, as noted, by Pinoy, may not be complete, and the cavities may communicate. Spiral hyphae, as found in most species of trichophyton, are absent; pectinate structures, as found in the microsporons, are absent, no spore-bearing hyphae, with lateral conidia of type Acladium, as noted both in the trichophytons and the microsporons. The cultures undergo rapid degenerative changes, losing their characteristics, and becoming covered with abundant uniform, long, white duvet (pleomorphism). They are not inoculable into guinea pigs, except Pinoy's epidermophyton simii. The species so far known have been isolated from human lesions, except the epidermophyton discovered by Pinoy in monkeys.

TABLE OF EPIDERMOPHYTONS.

Genus

Epidermophyton, Lang, 1879.
Emendavit Sabouraud, 1907.

Species

E. cruris, Castellani, 1905.
E. perneti, Castellani, 1907.
E. rubrum, Castellani, 1907.

These species may be recognized by their growth on Sabouraud's agar:

(a) Color: peculiar yellow.....cruris
(b) Color: pinkish .....perenti
(c) Color: deep red .....rubrum

For E. simii, Pinoy, 1911, Chalmers and I created the genus Pinoyella.

EPIDERMOPHYTON CRURIS, CASTELLANI, 1905.

Synonyms.—Trichophyton cruris, Castellani, 1905; epidermophyton inguinalis, Sabouraud, 1907; T. castellani, Brooke, 1908.

Found first in cases of dhobie itch (tinea cruris) in Ceylon by me, and later in France by Sabouraud. The fungus is very abundant in recent cases, extremely scarce in old ones. The mycelial tubes in recent cases are generally straight, have often a double contour, and the segments are somewhat rectangular, their breadth being 3½ to 4½ microns. Branching is not rare. The spores are rather large (4 to 7), roundish, and have generally a double contour; they do not collect in clusters. In chronic cases degeneration forms of the fungus are met with; the mycelium may be banana-shaped, may show several constrictions, or long strings of ovoid elements may be seen. This epidermophyton grows well, but rather slowly, on glucose agar and maltose agar. The growth begins to be visible after four to eight days, the colonies being at first of a peculiar yellow color, lemon yellowish or orange yellowish, occasionally with a greenish tinge. Later they become white with pulverulent surface, and may be acuminate or crateriform. Pleomorphism, with abundant white duvet, develops quickly. Attempts at reproducing the eruption in man by innoculating pure cultures have generally failed, but De Silva and others have recently succeeded in reproducing the disease.

EPIDERMOPHYTON PERNETI, CASTELLANI, 1907.

This fungus has been described by Pernet in a case of tinea corporis. It differs from E. cruris by growing much more rapidly on Sabouraud's agar, and by the cultures having a delicate pinkish color, which is generally lost in subcultures. It is a very rare fungus.

EPIDERMOPHYTON RUBRUM, CASTELLANI, 1909.

Synonym, Trichophyton purpureum, Bang, 1910.—This fungus was described by me in Ceylon in 1909, and by Bang in France in 1910. On maltose agar the growth begins to appear four or six days after inoculation as a raised red spot, which gradually enlarged. At complete development the growth is of a deep red color, either with a central knob or crateriform, and is partly covered with a white, delicate duvet. In old cultures the

white duvet is much more abundant and thicker, and may hide the red pigmentation almost completely. On glucose agar (4 per cent), which is the best medium for this fungus, the growth is of a very deep blood-red color, and the red pigmentation may spread to portions of the medium itself. In old cultures abundant white, occasionally white-greenish duvet is present. This may hide the pigmentations, but on scraping out the duvet the pigmentation will be found to be still well marked in most cases. On ordinary agar and glycerine agar the fungus grows fairly well, but there is no red pigmentation.

TRICHOPHYTON.

Very occasionally fungi of the genus Trichophyton Malmsten, 1845, may be found. A few botanical remarks may not be out of place. I follow the classification introduced by Chalmers and myself (see "Manual of Tropical Medicine," 3rd edition, p. 986).

GENUS TRICHOPHYTON MALMSTEN, 1845 *(Sensu Stricto).*

Definition.—Trichophytoneae with mycelial filaments and spores present in the lesion and conidial-bearing hyphae in cultures, only attacking hairs and entirely of human origin. Hardly ever pyogenic.

Type Species. — Trichophyton tonsurans Malmsten.

GENERAL CONSIDERATIONS.

During their parasitic life the species of the genus trichophyton vegetate according to two types: (1) mycelial filaments; (2) mycelial spores. The mycelial filaments consist of long cylindrical cells, separated by septa. The so-called mycelial spores are simply a modification of the mycelial filaments, due to the septa being much closer, so that the cells limited by them are almost as broad as they are long. The term "mycelial spores" is incorrect, as they are not organs of reproduction, but only vegetative organs. When the shape of these mycelial spores or sporulating mycelia is roundish or oval, the filament takes a moniliform appearance. Moreover, these cells are easily dissociated. Such a type is called "fragile mycelium." To this type belongs, for instance, *Trichophyton sabouraudi*, R. Blanchard. When the mycelial spores are square, the filaments straight, and its articles long, the mycelium is called "resistant." This type is observed, for example, in *Trichophyton tonsurans*, Malmsten.

Pleomorphism.—Cultures on maltose and other sugar agar of all trichophytons, with the single exception of T. sabouraudi, becoming old, lose their characteristics and become covered with abundant white duvet. In these cultures, which can be considered generate, and are generally called "pleomorphic," organs of fructification are usually absent. By transplanting these cultures the same pleomorphic, downy type of growth will be obtained; never again will the growth show the characteristics of the original young cultures directly obtained from the lesions. It is impossible to return to the original type, even by animal inoculation. To prevent pleomorphism, Sabouraud advises the following medium:

Agar	1.8 grammes
Peptone Chassaing	3 to 5 grammes
Water	100 c.c.

On this medium the growth of the various trichophyton is much less abundant than on sugar media, but the cultures are fairly characteristic, and do not become pleomorphic.

EXPERIMENTAL INOCULATIONS.

Certain trichophytons can easily be inoculated experimentally into man, and into many of the laboratory animals—guinea-pigs, rabbits, etc. Sabouraud advices the inoculation of portions of the cultures to be made into a small fictena, artificially induced by burning, such as by applying to the skin a lighted match. The intravenous injection may induce generalized lesions of the internal organs. The intraperitoneal injection as done by Citron may induce a type of peritoneal pseudo-tuberculosis.

MODE OF INFECTION.

With regard to fungi of the genus *Trichophyton, sensu stricto*, infection takes place from man to man. According to many authorities, there is little doubt that trichophyons may live saprophytically in nature; this explains sporadic cases of trichophytosis in man.

REPRODUCTION.

This takes place by:

1. Lateral and terminal conidia, supported by short sterigmata.
2. Chlamydospores; these are rare.
3. Large terminal septate and unseptate spindles or macroconidia.

CLASSIFICATION.

The principal species of the genus *Trichophyton sensu stricto* arranged chronologically are:

1. T. tonsurans, Malmsten, 1845.
2. T. sabouraudi, R. Blanchard, 1895.
3. T. violaceum, Bodin, 1902.
4. T. sulphureum, C. Fox, 1908.
5. T. glabrum, Sabouraud, 1909.

6. T. fumatum, Sabouraud, 1909.
7. T. effractum, Sabouraud, 1909.
8. T. circonvolutum, Sabouraud, 1909.
9. T. regulare, Sabouraud, 1909.
10. T. umbilicatum, Sabouraud, 1909.
11. T. exsiccatum, Uriburu, 1909.
12. T. polygonum, Uriburu, 1909.
13. T. soudanese, Joyeux, 1912.
14. T. decalvans, Castellani, 1913.
15. T. currii, Chalmers and Marshall, 1914.
16. T. louisianicum Castellani 1926.

These may be recognized as follows:

A. Condition of mycelium in hair not definitely stated, but probably that of the crateriform subdivision.

1. In cultures very convoluted—*Circonvolutum.*

B. Condition of mycelium in hair definitely stated.

I. Mycelium in hair resistant to caustic potash, segments characteristically quadrangular in shape, with double contour, 4 to 6 microns in breadth, arranged in fairly straight ladder-like rows—*Crateriform subdivision.*

(a) *Cultures colored and with craters—Tonsurans group.*

2. Yellow in centre, white at periphery—*Tonsurans.*

3. As "Tonsurans," but when old, cracked, and dry—*Effractum.*

4. Orange-red centre, remainder sulphur colored—*Sulphureum.*

5. Golden-yellow convoluted centre, becoming crateriform later—*Soudanese.*

6. When old of a yellowish-brown color—*Fumatum.*

(b) *Cultures white with craters—Umbilicatum group.*

7. Deeply umbilicated with aureola—*Umbilicatum.*

8. Slow growth, surface cracked, with dry appearance—*Exisiccatum.*

9. Growth at first roundish and then polygonal—*Polygonum.*

(c) *Cultures white with knob-like centre—Currii group.*

10. Does not form duvet—*Currii.*

II. Mycelium in hair not resistant to caustic potash; segments rounded, 4.7 microns in diameter, not arranged as a rule in rows, but if a row is visible it resembles a string of beads and not a ladder—*Acuminate subdivision.*

(a) *Without acuminate centre — Violaceum group.*

11. Primary growth violet:

(i) Ordinary amount of sealing on the head—*Violaceum.*

(ii) Enormous numbers of scales, followed usually by permanent baldness—*Decalvans.*

12. Primary growth white—*Glabrum.*

(b) *With acuminate centre—Sabouraudi group.*

13. Without duvet when old — *Sabouraudi group.*

14. With duvet when old—*Pilosum.*

With regard to T. louisianicum the cultures somewhat resemble those of T. sulphureum but there are no craters, and the yellow color is much more delicate.

Genus Neotrichophyton, Castellani and Chalmers, 1918.

Definition.—Trichophytoneae with mycelium and spores present in the lesions and conidial-bearing hyphae in cultures; attack hairs, but with mycelial spores and filaments outside the hair shaft.

Type Species—Neotrichophyton flavum, Bodin, 1902.

Classification.—There are only two species which may be distinguished as follows:

1. Cultures cerebriform—*Flavum.*
2. Cultures crateriform and creased—*Plicatile.*

Genus Ectotrichophyton, Castellani and Chalmers, 1918.

Definition.—Trichophytoneae with mycelium and spores present in the lesions, and conidial-bearing hyphae in cultures; attacks hairs and hair follicles, growing in on the surface of the hairs; often pyogenic and of animal origin.

Type Species.—Ectotrichophyton mentagrophytes, Robin, 1853.

Classification.—The genus is capable of division into three subgenera by the following characters:

L. Ectotrichophyton.—With small spores about 3 to 4 microns in diameter, forming a sheath outside the hair shaft, on dissociation of which they are seen to form chains; with sinuous and quad-

rangular hyphal segments, together with spores of varying diameter and air bubbles, inside the hair shaft; with cultures easily obtainable, of rapid growth, and of considerable vitality, characterized by plaster-like or floury centres surrounded by a fringe, when grown on Sabouraud's proof media and by successful inoculations into animals—Subgenus *Microtrichophyton.*

2. *Ectotrichophyton.*—With large spores about 5 to 7 microns in diameter, forming a sheath outside the hair shaft, on dissociation of which they are seen to form chains, and with sinuous hyphal segments, together with large-sized spores and air-bubbles, inside the hair shaft; with cultures easily obtainable, of slow growth in temperate climates, though much more rapid in tropical climates, characterized by their tendency to resemble (at all events when old) those of the achorions, and capable of being inoculated into animals:

(a) With early formation of duvet—Subgenus *Ectotrichophyton.*

(b) Culture sooner or later resembles that of *Achorion schoenleini — Subgenus favortrichophyton.*

Ectotrichophyton (Favotrichophyton), Castellani and Chalmers, 1918.

Definition.—Ectotrichophyton with the characters given above for favotrichophyton.

Type Species.—Ectotrichophyton discoides, Sabouraud, 1909.

Classification.—The Favotrichophyton species which are known are:

E. verrucosum, Bodin, 1902.

E. ochraceum, Sabouraud, 1909.

E. album, Sabouraud, 1909.

E. discoides, Sabouraud, 1909.

E. luxurians, Brault and Viguier, 1914.

These may be differentiated as follows:

A. Condition of mycelium in hair not definitely stated:

I. Young cultures white in color, and soon resembling those of *Achorionschoenleini,* but sunk into the medium—*Album.*

B. Condition of mycelium in hair that of an ecto-endothrix:

II. Cultures grey in color, humid, with verrucose surface—*Verrucosum.*

III. Young cultures of a yellow-ochre color—*Ochraceum.*

IV. Cultures yellowish-brown or greyish-yellow, cupola-shaped, humid, with usually smooth surfaces, and not resembling the achorion cultures until old—*Discoides.*

V. Very rapid development—*Luxurians.*

Ectotrichophyton (Microtrichophyton), Castellani and Chalmers, 1918.

Definition.—Ectotrichophyton with small spores 3 to 4 microns in diameter.

Type Species.—Ectotrichophyton (Microtrichophyton) mentagrophytes, Robin, 1853.

Classification.—The following species are known.

E. mentagrophytes, Ch. Robin, 1853.
E. felineum, R. Blanchard, 1895.
E. granulosum, Sabouraud, 1908.
E. farinulentum, Sabouraud, 1910.
E. persicolor, Sabouraud, 1910.
E. lacticolor, Sabouraud, 1910.
E. radiolatum, Sabouraud, 1910.
E. denticulatum, Sabouraud, 1910.

These may be differentiated as follows:

A. Grows best on agar with sugars—*Persicolor.*

B. Grows best on agar with sugars:

I. Growth white, elevated centre, powdery surface, radiating furrows.

(a) Furrows well marked. Pure white—*Mentagrophytes.*

(b) Furrows poorly marked. Not so white—*Radiolatum.*

II. Growth white, discoid, umbilicated, but later knob in centre; white, powdery surface, radiating furrows—*Farinulentum.*

III. Growth white, yellowish, dotted with granular projections—*Granulosum.*

IV.—Growth cream white to yellowish, not granular—*Lacticolor.*

V. Growth white, with umbilicated centre, with numerous radiating projections at periphery.

(a) Projections well marked—*Felineum.*

(b) Projections poorly marked—*Denticulatum.*

Genus Atrichophyton, Castellani and Chalmers, 1918.

Definition.—Trichophytoneae with mycelium and spores present in the lesions and conidia on short stalks, but they do not attack hairs.

Type Species.—*Atrichophyton albiscicans*, Nieuwenhuis, 1907.

Classification.—The following will indicate the characters of the species:

A. *Has been cultivated:*

I. Culture with powdery surface—*Albiscicans.*

II. Culture brownish mass with deep furrows —*Macfadyeni.*

III. Cultures pinkish with violet tinge—*Viannai.*

B. *Has not been cultivated:*

I. Spores are numerous and of various sizes—*Blanchardi.*

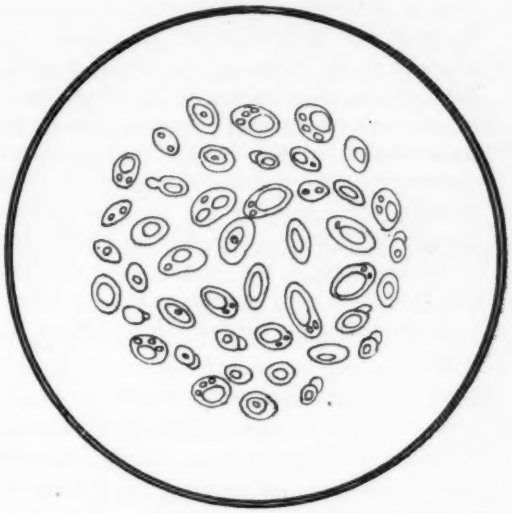
II. Spores are few and about 4 microns in diameter—*Ceylonense.*

YEAST-LIKE FUNGI

In some cases of pruritus ani I have found fungi of the genus monilia Persoon and other yeast-like organisms (saccharomyces, cryptococcus, etc.) either alone or together with Epidermophyton, but I doubt whether they play an important part in the causation of the pruritus; they probably play the role of secondary invaders, similar to the role played by certain bacteria, such as streptococcus.

In other publications I have given a botanical classification of yeast-like fungi (see also "Manual of Tropical Medicine," by Castellani and Chalmers, third edition, chapters on fungi), but I will limit myself here to mention a very simple scheme of classification which may be used by clinicians for practical purposes. In this scheme the two principal features to which importance is given are:

1. Presence or absence of mycelium.
2. Presence or absence of ascospores.



Yeast-like organism

BACTERIA.

Bacteria are usually present, and colilike organisms, proteus, various cocci, including several kinds of streptococci have been found. They may, and probably do, play a part in the causation of the secondary eczematous dermatitis, but I doubt whether they alone can produce severe pruritus. A case of so-called streptococcus pruritus sent to me in London turned out to be a case of epidermophyton infection, due to epidermophyton cruris. The streptococcus was abundantly present, but was not the actual cause of the pruritus, as streptococcus vaccine caused no improvement whatever in the local condition, while an antimycotic treatment with sulphur and salicylic acid cured it.

DIAGNOSIS.

A definite diagnosis of mycotic pruritus ani can not be made without epidermophyton or trichophyton fungi being found mi-

Yeast-like Fungi
- Mycelium absent.
  - Ascospores absent: *Cryptococcus sensu lato.*
  - Ascospores present: *Saccharomyces sensu lato.*
- Mycelium present (at times in a very small amount).
  - Ascospores absent: *Monilia sensu lato.*
  - Ascospores present: *Endomyces sensu lato.*

croscopically or by mycological cultural methods; a diagnosis of probability can often be made, however, on clinical grounds, the minute, red infiltrated patches, fairly often seen on careful examination in the ano-perianal region being suggestive, especially if the patient is suffering from mycotic dermatitis of the toes, or gives a history of having suffered from dhobie itch or tinea cruris in the past. When the bacterial flora is very abundant it may be extremely difficult or impossible to isolate the fungi.

COURSE AND PROGNOSIS.

The course of the condition is chronic, but periods of great improvement and apparent cure may alternate with periods of severe recrudescence. Attention should be called to certain cases, fortunately rare, in which although the fungus under appropriate treatment has completely disappeared, the pruritus still continues. This is observed in highly strung, very nervous individuals. Very difficult cases are also patients suffering from, or having a tendency to, true eczema; when they become infected with epidermophyton fungi—either the irritation caused by the fungi themselves or set up by the treatment to eradicate the condition—they may develop an attack of eczema not only in the ano-perianal region but in many other regions of the body.

TREATMENT.

In uncomplicated cases an ointment I have found very efficacious is the following: sulphur praec. gr. 30, acid salicyl. gr. 30, vaseline ʒi—the ointment I introduced some years for the treatment of ordinary tinea cruris. A preparation which frequently answers remarkably well is Deek's ointment, which consists of salicylic acid 4 parts, bismuth subnitrate 10 parts, mercury salicylate 4 parts, oil of eucalyptus 4 parts, vaseline and lanolin sufficient to make up to 100 parts. It is interesting to note that long ago Deeks found that this antimycotic ointment had a very beneficial action in many cases of pruritus ani, although the existence of a mycotic type of the condition was not known at the time. A slightly modified Whitfield's ointment is also useful: carbolic acid 5 gr., salicylic acid 15 to 30 gr., acid benz. 15 to 30 gr., vaseline 1 oz. In several cases I have found the following ointment most useful: Ung. picis ʒi, zinc oxide 40 gr., ung. ac. salicylic 4 drachms, lanolin ad 1 oz.

In certain cases an ointment containing 2 gr. of chrysarobin to the ounce of vaseline is efficacious, but it may occasionally induce a severe reaction, and it stains, of course, the underclothing. It should not be used when there is any affection of the kidneys, and the patient should be told never to touch his face or eyes after applying the ointment.

Diluted tincture of iodine is at times useful, as well as collosol iodine oil. A strong lotion of potassium permanganate (15 gr. to 1 dr. to distilled water 1 ounce) is occasionally useful, also the frequent swabbing of the ano-perianal region with a perchloride of mercury lotion (1 to 1,000) or resorcin lotion (1 to 5 per cent).

When the pruritus is unbearable, painting the parts with a lotion consisting of arg. nitr. 15 gr., spir. aether nitr. 1 oz., at times stops the itching, either immediately or after a short period of time, during which the pruritus may become intensified; this paint should be used with care. In very chronic cases X-ray treatment is to be recommended; it is often successful, though, unfortunately, not always.

MYCOTIC PRURITUS VULVAE.

This condition is very similar to pruritus ani of mycotic origin, and it is not rare to observe female patients suffering from both conditions.

AETIOLOGY.

Mycotic pruritus vulvae is caused by the presence of fungi of the genus epidermophyton, occasionally of the genus trichophyton, which remain dormant in the external region of the labia majora without giving rise to the ordinary signs of active

tinea cruris or dhobie itch. Not rarely yeast-like fungi, usually of the genus monilia, but occasionally belonging to the genera cryptococcus, saccharomyces, endomyces, may also be found—the fungi of the vaginal as well as oral thrush, but in my experience it is rather doubtful whether they can alone give rise to severe pruritus, as under an appropriate treatment monilias may be made to disappear, but the pruritus usually persists. Monilias probably play the role of secondary invaders similarly to the many bacteria so often found in the condition, among which are various cocci and coli organisms.

CLINICAL SYMPTOMS.

The patient complains of very severe pruritis, in most cases at intervals. The examination of the genital parts may reveal nothing at all, but at times a few minute, red, hardly raised infiltrated patches may be seen. In long-standing cases an eczematous moist or dry dermatitis often develops, due to secondary bacterial invasion. In chronic cases there is often a large amount of vaginal discharge, in which various bacteria are found and fairly frequently monilia fungi.

ILLUSTRATIVE CASE.

An elderly spinster consulted me some time ago for vaginal pruritus of some years' duration, which had been treated by different medical men in various ways without any distinct amelioration resulting. In the perianal region, on the perineum and on the labia majora, a very few small reddish patches were seen, which it was thought, might be due to scratching. There was an abundant purulent vaginal discharge, and also purulent discharge from the anus, with symptoms of proctitis. A complete mycological and bacterial investigation was carried out. From the scrapings of the perianal region and the labia majora a fungus was grown with the characters of *Epidermophyton cruris*, Castellani, 1905, the fungus which is the commonest cause of dhobie itch and pruritus interdigitalis pedum. In the vaginal and in the rectal discharge enormous numbers of monilias were present, with very few bacilli; cultivation showed the fungus to be a strain of *Monilia pinoyi*, Castellani.

The following treatment was given: Creosote was administered by the mouth; tinc. iod., which in this case did not give rise to any local pain or irritation, was freely applied once a day to the anoperianal region, the perineum and the external surface of the labia majora. For the first three days hot alkaline irrigations (1 dr. of bicarbonate of soda to a pint of water) were given; afterwards, twice a day, an iodine irrigation (tinct. iodi. 1 dr., a2. ad Oij). Within two weeks the lady was completely free from the anal and vaginal pruritus; the purulent rectal discharges decreased, but did not quite disappear. The monilias present diminished enormously in number, but did not disappear completely.

PROGNOSIS.

The condition has no tendency to spontaneous cure, but periods of great improvement and even complete cessation of the pruritus may be noted.

TREATMENT.

This is on the same lines as for mycotic pruritus ani. In uncomplicated cases my salicylic sulphur ointment (acid salicyl. 30 gr., sulphur gr. 30, vaseline ℥i) or Deek's ointment half strength, or a modified Whitfield ointment answers well, or painting with diluted tinct. iodine. When an acute eczematous dermatitis, generally due to vaginal discharge, is present, local applications with lotio plumbi (liquor plumbi sub. 1 dr. to the pint), liquor carbonis detergens (2 dr. to the pint), are useful, and vaginal douching with iodine (tr. iodine 1 dr. to two pints), or potassium permanganate (1 in 5,000) should be carried out. Later tar ointments or pastes, such as liq. picis. min. 10-20, zinci ox. 2 dr., vasl. ad. 1 oz., are useful. X-ray treatment is at times very useful.

BIBLIOGRAPHY.

Castellani (1923), "Medical Mycology: Pruritus Ani of Mycotic Origin," *British Medical Journal*, December 1, pp. 1037-1041. Castellani (1914), Notes on "Pruritus Ani of Mycotic Origin," *Journal of Tropical Medicine and Hygiene*, xxvii, 304. Castellani and Taylor (1925), "Vaginal Monilias," *Journal of Obstetrics and Gynaecology of the British Empire*, xxxii, 69. Castellani (1924), "*Tropical Dermatology*," *Proceedings International Conference on Health Problems in Tropical America*, pp. 480-499. Castellani (1925), *Lancet*, November 8, 1924, p. 920. Castellani and Taylor (1925), "Further Observations on Vaginal Monilias and Vaginal Moniliases," *Journal of Tropical Medicine and Hygiene*, July 1.

ACUTE OTITIS;*

ITS IMPORTANCE AND EARLY TREATMENT.

GEORGE R. BERIDON, M. D.,

OPELOUSAS, LA.

The term acute otitis in the usage of our everyday practice is usually limited to those inflammations or suppurative affections of the external and middle ear; the affections of the inner ear being referred to more specifically as labyrinthitis.

It is not my intention to dwell at all upon the latter, but to devote a few minutes of my allotted time on the former affections, particularly as they apply to the very young.

When we take time to consider the statistics of some authorities who make the significant statement that from 80 to 90 per cent. of all cases of partial or progressive deafness come within the ambit of one of the possible complications of sequellae of an early acute otitis, particularly otitis media, we have forcibly impressed upon us the grave realization that our common earache of childhood is one presenting grave economic and social problems for the youngster in his later life.

Otitis external usually takes two forms, the circumscribed or diffused. Neither is dangerous to life and fortunately gives rise to sufficient pain to cause the patient to seek relief at the hands of the physician, which means that these cases are usually discharged without any of the possible complications, as perichondritis or bone necrosis, with the possibility of an occluded meatus.

The anatomy of our middle ear, with its delicate and complicated hearing mechanism, is such that any acute inflammatory process within it constitutes a menace to the function of hearing.

If the middle ear were a cavity constructed of an antrum, one would expect an inflammatory infection of its lining to be self-limited, and ending in nothing more than an empyema, where a simple drainage would result in a cure. But instead of such an easy and favorable termination, it may become a menace to one's life by the possibilities of its extension to the cranial cavity through the labyrinth, or by the mastoid antrum and air cells to the meninges and lateral sinus. Some of these complications happen so very often that no effort should be spared in combatting the earliest manifestations of the disease in an effort to cut short the attack. Unfortunately, in the very young it is impossible to do so in all cases, on account of no manifestation of the disease showing itself. The elasticity of the drums of these youngsters allows it to stretch to such an extent that even the accumulation of a large quantity of pus behind it does not seem to give rise to pain. Spontaneous rupture takes place, and for the first time attention is called to the ear. Very often a youngster's prolonged fever would be cut short if the stethoscope would share some of its time with the ear speculum at the hands of the attending physician. This is especially true in our exanthematous fevers and influenza. This was never so forcibly impressed upon me as within the past few weeks, when within a period of twelve days I saw two cases of acute mastoiditis in infants, in which at no time were there sufficient ear symptoms to call attention to a possible otitis media as the cause of their obscure fever. If this be true, when we have pus in the middle ear, just imagine how often we must let slip by us the acute stage of a catarrhal otitis media on account of its being a milder inflammatory condition. The adults will report to you when suffering with the condition, even if they complain of only a stuffiness in the ear, or a "funny feeling" at the lower angle of the jaw, but the only manifestation the child may show is indifference when spoken to, or by asking you to repeat what you said or asked of him. Do not accuse these little ones of being careless, stupid or

*Read before the Louisiana State Medical Society, Monroe, April 15-17, 1926.

curious, but investigate their ears, even if they tell you that they feel no pain and hear well. Look into the ear of the baby who tosses its little head during its sleep, and instead of referring as "cute" to the little one that brings its hands to its ears look for possible trouble in that ear.

The question arises as to what the otologist is to do for these cases if they are so prone to exist without being manifest enough for the bedside attendant to notice them. The thing to do is to look for the condition in all obscure fevers, and not wait for it to look for us, and never to discharge a patient having had any of the exanthematous fevers, as well, unless a competent otologist has made an examination of the ears and found them unaffected.

The day, it seems, has not yet arrived when our schools generally will have routine examinations by men competent to put the children through hearing tests. Only a routine examination of the ears in all children will enable us to get at the early treatment of middle ear disease, so as to prevent the deafness which follows later. Another great step is in the giving of more serious consideration to the child with the "running nose." Our naso-pharynx is constantly harboring virulent micro-organisms, which are taken care of until, at some time, the patient's resistance is lowered when he catches a cold in the head. Whenever there is a congestive process in the region of the nose or naso-pharynx, such as an acute coryza, there is the almost certain chance of the infection getting into the eustachian tube and there cause inflammatory changes of the delicate mucosa of the middle ear, and unless proper remedial attention be given these, we are not treating our middle ear cases properly. The infection of the middle ear is more common in children than in adults, due to their being more susceptible to inflammatory condition of the nose and throat, and because again, the anatomical condition of the tube is such, in children, that micro-organisms more easily enter into it. Due to this larger opening of the eustachian tube in children, it is an easy matter for them to blow into it secretions and infectious matter by the improper blowing of their nose.

At the onset the treatment must be directed towards the causative factors. As most of these cases are associated with some process within the nose and throat, this must receive proper attention. It is a wise axiom to follow that once an acute otitis has shown itself in the ears, any abnormality in the nose and throat should be corrected. The treatment of the naso-pharynx during the acute stage will consist, mainly, in the cleansing of the mucosa of this region, and the application of astringents. Liberal spraying of the nose and naso-pharynx with any of the milk warm alkaline solutions, such as sodium bicarbonate, will suffice to clean them. Follow this with a spray of a 10% solution of argyrol or some other silver salt.

A hot water bag to the ear will usually afford considerable relief of the pain present. A warm douche of a solution of about a teaspoonful of table salt or sodium bicarbonate to a quart of warm water will not only keep the ear canal clean, but afford marked relief of the pain, due to the heat. If it is necessary to use any analgesic drops for the pain, I know of nothing better than a few warm drops of equal parts of 1-5000 adrenalin chloride and a ten per cent solution of cocaine. This not only relieves the local congestion, but the cocaine has a direct anesthetic action on the sensory nerve endings. Do not use any drops with a thick oily base as olive oil, as they only gum up the ear and are hard to remove when you wish to make an examination of the drum. The drum should be carefully inspected daily, after the warm saline or alkaline douche during the entire course of the acute process. When these have subsided, one should attempt to test the hearing of the child, and if it is found impaired, some means must be found to bring it back

to normal. Politerization in a young child is practically impossible, but we can have recourse to massage, externally, and with patience and perseverance we get results which will forestall endless troubles later on.

Of course, in the treatment of these cases as soon as there is sufficient evidence that there is a formation of pus within the middle ear cavity, an immediate evacuation of this pus is necessary. I personally do not wait until I have marked bulging of the ear-drum before performing a paracentesis. You can do no harm if you cut from high up posteriorly sweeping downward and forward. Such an incision can be made to equal two-thirds of the circumference of the drum without any danger. On the other hand, temporizing may enable changes to take place, which will be permanent and make the prognosis more grave. After making the incision I believe in keeping the canal clean by repeated douching even if it is contrary to the teachings of some men today. If the discharge is profuse and persists for more than four or five days, we can usually check same by the use of drops of about two grains of boracic acid to the dram of alcohol placed into the ear canal after the douching, and allowing it to remain in it for five or ten minutes.

After our acute symptoms disappear and our patient feels comfortable, our treatment is only accomplished, and only by looking for and correcting pre-disposing etiological factors in the nose and throat do we perform our full duty. The importance that tonsils and adenoids play in an acute infection in the ear are getting to be so universally recognized today that no hesitation should exist as to their removal. They always cause trouble if they are diseased, or if they interfere in any way with the action of the eustachian tube. I think it a good rule to remove them in all cases as soon as our acute symptoms have been controlled. My experience has been that when the condition is explained to the parents that they readily consent to have this operation performed.

DISCUSSION.

Dr. Jules E. Dupuy (New Orleans): I shall address my remarks to one phase of the subject, acute otitis media in infancy, because the infants are the most typical problem. I agree with the essayist when he tells you not to put oily solutions in the ear canal for the relief of the trouble in the middle ear, but I go him one further, because he admits that he could advise the use of cocain and menthol and carbolic acid.

Now if the trouble is in the middle ear and begins in the nasal pharynx and nose, what is the result of putting stuff in the canal? No sense at all in that. Leave the canal alone; treat the condition through the nose and nasal pharynx.

What shall we do for the infant when he first begins to give signs of an earache, pain and tossing around and other subjective symptoms? Treat his nasal pharynx, neosilvol instillations of the nose, argyrol ten per cent and adrenalin ten drops to a teaspoonful of water, which will give you about one to four thousand solution. Use is every three or four hours. Why? Because the most of the pain is the tension in the middle ear, the hyperemia congestion. You can avoid that and sometimes bring the thing down to the first stage and avoid suppuration by the use of adrenalin instillations of the nose every three or four hours because the adrenalin contracts tissue. Opening the eustachian tubes oftentimes kills the patient.

Secondly, I want to refer to a group of infants who have acute otitis media suppurativa but who give you a very indistinct and obscure picture. The pain is so slight that the tossing of the head is not observed. But there is temperature. It is only by elimination of the lungs, kidneys and gastro-intestinal tract that you can finally begin to suspect the middle ear. Remember, no pain. Practically no symptoms but a continuous septic temperature. In the Charity Hospital, over and over again, in helping the pediatrist solve a problem of that kind, it developed that there was trouble in one or both ears.

As to the treatment surgically, what shall we do and where shall we do it? And there again I agree with the essayist about the ice bag on the outside of the ear. I think it is the right thing. It promotes suppuration I think. The ice bag removes the congestion, relieves the pain and possibly helps the mastoid. If in spite of the ice bag, in spite of the argyrol, in spite of the neosilvol, in spite of the nose, the temperature keeps up twenty-four or thirty-six hours, more than thirty-six hours, we should intervene surgically.

The infant has such small amount of brain in the highest sense of the word, it seems to me; his psychology is so low that we can afford to puncture his ear drum without giving an anesthetic at all. One point is very important. If in doubt open both ear drums and be sure. One is never sufficiently expert or so expert in his vision that he can be sure that both ear drums are normal or that only one ear drum is normal. If the canal is small and the vision not so sure as to trouble on one side, if there is the least supicion about it, open the two sides.

Mr. President, the essayist and I agree on all things, as I said just now, excepting that I will not agree with him as to the placing of cocain and menthol and carbolic acid in the canal for the reason that it might shake up and obscure the view. Again, I think if you will adopt the plan of applying ice bag as we do in appendicitis it will relieve the pain and possibly abort a mastoiditis.

Dr. Rufus Jackson (Baton Rouge): Gentlemen, there is so much that could be said on this subject that I hate to begin it. If I may just take a half a minute I would like to draw a little rough sketch (drew the sketch on the blackboard). Call that your middle ear cavity, roughly. Right up here is your opening into your antrum. My word to you would be to consider every affection of the middle ear a potential mastoid infection and in the child when the antrum and mastoid is infected practically the whole mastoid is infected. It is almost impossible to conceive of an infection in this middle ear not infecting the mastoid antrum.

Don't depend entirely on the fever, you general practitioners. This is not a critical attitude; it is an appeal for co-operation, for liason, when you are in doubt. When your child, no matter if it hasn't any temperature elevation but has spent a fairly good night, if it continues to be restless and doesn't seem to sleep just exactly right, you have that ear examined. Not long since I did a mastoid on a child just like that. They don't have fever nowadays. It isn't getting to be the popular thing. If there is fever, as a rule it is a mixed infection. Don't depend entirely upon pain either.

Gentlemen, I am not going to disagree with anybody. I am going to tell my experience. You nose and throat men have been using ten per cent argyrol. A good many of you nose and throat men tell them to put in one, two or three drops of argyrol. Some of these days a good mother will get energetic and put in half a dropperful and you are going to get a reaction that it will take you several days to combat and you are going to get a reaction in the eustachian tubes that will put you in a worse condition than ever.

You can put ten per cent argyrol in your nose. That is enough. I say to use five (5) per cent argyrol, gentlemen, and let them put it in freely. Then you won't get a reaction. Don't say four or five drops. Estimate what ten drops will be in the dropper and shoot it in and then turn the baby over and let him spit it out.

In treating your canal you have done exactly right in telling them not to put the oil in. Tell them to do something that is going to prepare this canal for your future procedure. Use what you may. Personally, I prefer five per cent carbolized glycerine because it mixes with the anesthetic and every time I give that to a mother I say, "Remember this will not cure your baby's ear condition. This is only a solution which will help to relieve the pain." As a matter of fact, you ask why I give this. Dr. Dupuy said, why treat the external canal. I am going to tell him why I do that: Because the mental condition, the psychology of our people of today is not sufficiently developed to realize that they can leave off the external canal treatment. Some neighbor woman would come in and tell them what to put in there, if you prescribed nothing.

Dr. J. M. Mosely (Shreveport): I wish to bring to the attention of the general practitioner the importance of early recognizing these cases for often they will go on to suppuration in a very short time. If you have a case of earache in a child don't pass it up lightly thinking as it has just started there is not reason to be alarmed, for occasionally you may be surprised how quickly these cases go on to suppuration requiring the drum to be opened or it ruptures spontaneously. I think that Dr. Dupuy has outlined a good treatment for this condition of the middle ear. The adrenalin will produce an ischemia of the mucus membrane and then with some antiseptic such as argyrol applied to the naso-pharynx by dropping it through the nose if the child is not relieved instead of putting a lot of "stuff" in the external auditory canal, give the child a dose of aspirin and Dover's powder.

If the patient comes from under the influence of these drugs and still has pain it would be much safer to have some specialist see the case.

Dr. E. V. Whitaker (Baton Rouge): In the treatment of the external canal, I have found that there are two schools of thought along that line. Twelve years ago Dr. Joe Aiken gave me a prescription for otitis media which was: iodized phenol minus eight and glycerine grams three, five drops in the ear every two hours, with the patient lying on the opposite side from ten to fifteen minutes timed by the clock.

I certainly don't believe in putting oily stuff in the ear. If you are going to put anything in the ear at all, use something that will wash out very easily, and iodized phenol will.

Some of the hospitals won't touch the external canal. Some do put the iodized phenol in. But bear this thought in mind, that if you can possibly use any adjunct treatment to break up a middle ear infection to avoid opening the ear drum you lessen the danger of chronic otalgia, that only an ear drum that has been perforated by surgery or by itself is going to be susceptible to a chronic otalgia. If the drum is not perforated, there is no danger.

The logical thing is just as the paper brought out, treat the seat of the trouble, through the nasal pharynx, and that is the way to treat it. Personally, I believe there is food for thought on both sides. One side takes the idea that you must never put anything in the external auditory canal and some use a mild antiseptic.

Dr. S. M. Blackshear (New Orleans): Gentlemen: I am sorry I did not get here in time to hear the paper having just left a meeting of the House of Delegates. You seem to be discussing earache with its causes and treatment.

I would like to say that during the recent epidemic of influenza we had a great deal of earache. Frequently the doctor is not called until there is an otitis media and then there is nothing to do but to open the drum. It has been our experience that in the majority of cases this can be done under local anesthesia using a solution of equal parts cocaine, menthol and carbolic acid, thirty-three and a third per cent each. This solution is instilled into the auditory canal and allowed to remain for fifteen or twenty minutes when the anesthesia is usually quite complete. When the drum membrane is thoroughly incised, the incision being made long enough, as a rule the earache is relieved and the abscess drains and heals from the inside and it is not necessary to reopen it. However, in some cases, it becomes necessary to incise more than once.

Recently there has been a trympanotomy knife (Denfacour's) on the market which is constructed in the shape of a coffee or rice sampler, *i. e.*, it is v-shaped and leaves a flap when the drum is opened long enough to allow for free drainage. This knife has proven practicable especially in dealing with otitis media in children since it is only necessary to stab the drum with this knife in order to get free drainage.

At times we are called in at the beginning of an earache and on examining the drum we find it retracted and red, especially in its upper portion (Schrapnal's area) when of course incision is unnecessary. In this condition the use of long pledgets of cotton saturated with a one per cent cocaine and three per cent antipyrine solution in the nose, placed in a manner so that the end of the pledget comes in contact with the mouth of the eustachian tube thereby correcting the congestion and deficient ventilation of the middle ear and relieving the earache. The application of nitrate of silver solution six per cent to the naso-pharynx is of great assistance in clearing up this condition and preventing otitis media. As for the use of drops in the external auditory canal for the relief of pain, it has been our experience that when ten per cent carbolized glycerine does not give relief, it is necessary to incise the drum.

Dr. R. B. Leavell (Bastrop): Of course, gentlemen, as a general practitioner the thing I want to say is to just emphasize its importance. A few years ago I heard a specialist on diseases of the eye, ear, nose and throat, read a paper and he made this assertion: that he had quite often seen green stools clear up by opening a drum. Well you know I thought he was a fanatic absolutely. But to emphasize what Dr. Jackson has said, I have seen green stools clear up when a paracentesis is done, and I have seen diarrhea clear up from opening the ear drum since that time.

So, quite often, when we have an irritable child that has been ill with something and we don't know what it is, if we will examine that ear we may find the trouble. I believe, while I have done this work myself, if you find an ear that has not that pearly, glistening look associated with a normal condition, any variation from that justifies a paracentesis, and you don't always have to find pus either to get your relief. Quite often they will just bleed a little bit in the beginning and that will relieve the child and maybe pus will come the next day.

Dr. Beridon (in closing): Mr. Chairman, I want to thank the men here for having so liberally discussed the paper. I would like to answer all of them. Some of them don't call for any answers except one point that Dr. Dupuy brought out, that is, when you are in doubt which ear to open, open both. I think Dr. Dupuy will bear me out in the statement that it is extremely seldom that you have an otitis in one ear alone without any inflammation whatever in the other ear. If we look upon an otitis media as caused by a naso-pharyngeal trouble, you will see that it is practically impossible for this inflammation to limit itself to one side of your naso-pharynx, so you can expect some trouble in your other ear, sometimes together and sometimes very often when you have

cleared one case the patient comes back with a condition on the other side.

Considering an otitis media as a potential mastoid is very true, but I usually give attention to my naso-pharynx even before I have any bulging of the drum, and I feel satisfied that Dr. Jackson will agree that if you perform an early paracentesis, treat your focus of infection, you don't have to worry about your mastoid as the mastoiditis is usually the result of those cases that are not seen early enough or neglected.

DIAGNOSIS.*

W. A. BRYAN, M. D.,

NASHVILLE, TENN.

The mastery of diagnosis means more to the patient and requires more of the doctor than any other detail in the practice of medicine. It is easy to understand how this might be disputed by the layman and certain professional men whose minds have long been fixed within too narrow limits; easy to understand how both of these would consider treatment as of prime importance. The patient is ill; he wants to be well; he considers that he gets well by treatment; therefore treatment to him stands first. The doctor whose practice is limited, whose view has become more limited, sometimes acquires an unwarranted reliance upon his line of work and too often comes to believe that everybody will be benefitted by his operation or one of his operations, or by his pet treatment. It has been so helpful to so many, is it not reasonable to conclude that the patient in hand would also be helped? Treatment is the goal of medicine, but to be intelligent, scientific and serviceable, it must succeed, and be determined, by diagnosis. Treatment without diagnosis is quackery, sheer and unpardonable experimentation. Grief awaits both the doctor and the patients who have such a conception of the practice of medicine.

Someone will think no such absurd thing as treatment without diagnosis exists. The deeds of men indicate otherwise. Upon this habit, so prevalent among laymen, the enormous, lucrative business of patent medicine is founded. There can be absolutely no doubt that numbers of patent medicines are well compounded of the very best drugs, which are universally recognized as useful remedies. Then why not use them when we are ill? In the first place those who use them do not know what they contain; the advertisement may be cunning or even crafty; it may tell you it is a perfectly simple home remedy and that you are to compound it yourself, using so much sugar and flour and lemon juice with a teaspoonful of X, which can be had at so-and-so's drugstore around the corner. There's the rub; what is X? Look X up in your dictionary; it is not there; look it up in your medical dictionary; it is not there; go down to the library and search the encyclopedias and it cannot be found. It is not. It is a figment, a name that has no meaning to science, no standing in literature, a lure adopted to entice the unwitting or that feeble-minded host who think the newest is always the best; who think that the oldest under a new, unknown, unknowable, meaningless name has acquired powers it had not before.

This mania for prescription without diagnosis is widespread. How often has each of you been asked if it will be all right to give Mrs. A some of Mrs. B's medicine? How often does somebody who never sent for you or visited your office even once call up your wife and ask her what she thinks ought to be given for indigestion? How often, in Heaven's name? How often do laymen in the club, at church, by the fireside, wherever laymen are gathered together, advise one another to stay away from the doctor and try some remedy that somebody else has been taking for something else, which may feel to John just like Tom said his trouble felt to him. Men love this way of playing with their lives. Sometimes they save a doctor's bill by it. It affords a splendid increase in the income

*Read before the Mississippi State Medical Association, Jackson, May 11-13, 1926.

of undertakers and occasionally a new car for the widow and children.

Then there is the medicine, patent or prescribed (an old prescription) the contents of which are known, that men and women try to see if maybe it won't help. Treating a condition the nature of which they cannot know. What is the matter with the patient who takes this remedy? Nobody knows. Nobody that has training and education enough to know has been asked to find out. It's a case of "I just thought it might be such and such." The patient knows he doesn't know a thing about disease or medicine. I can prove it; when a child gets sick papa prescribes or mama does; when the birddog or the Jersey calf gets sick they send for the veterinarian; a psychologic feat difficult to understand, the explanation of which probably rests finally upon the belief that a sick child is less likely to die than a sick animal. So when we use patent medicine we are put into the asinine position of giving a remedy, whose contents and whose effect we do not know, for an unknown disease. It is only fair to those who have yet escaped with their lives from such practices that the doctors should tell the family the plain truth about it and say, "Yes, you killed him." As soon as they find out the facts, all honest people will desist from such unpardonable practices, and all others will be classed as murderers. I am not trying to use figurative language; but am searching soberly for words to speak the truth, trying to emphasize the fact that most people who die before their time nowadays die because competent search for the cause of their trouble has not been made, or because improper treatment has been administered before the cause of trouble has been found.

Diagnosis is the most difficult thing in medicine; it is the philosophy of medicine. By this means great men sit in judgment of the lives and the health of the people. It embraces as its elements all that goes to make a man or a woman or a community. Geography even enters into it, climate, country, nationality, race. And the nearer things, the individual's personal and family history, his employment, his mode of living, his habits of travel, his personal habits of eating and drinking. Then comes his anatomy, physiology, chemistry, physical state, appearance, locomotion, strength, physical signs, symptoms. The laboratory findings, chemical, pathologic, X-ray, biologic, electrical. Then his idiosyncrasies. When all these have been inquired into, all that the merits of the case in hand warrant, the diagnostician must combine them in such a way as to arrive at a warrantable conclusion, often by patient study of all the evidence, much of which is contradictory, just as in legal cases. Thus and thus only can a diagnosis be made if the case is not from its nature obvious.

Sometimes doctors are called upon to make a complete examination. This has a double meaning, one to the mind of the patient seeking the examination, another to the doctor. The patient wants the diagnosis to be complete enough to know definitely all that is wrong with him, but he thinks a complete examination is complete, which it rarely ever is. There's always some other test that could be made. Literature is full of them. The doctor understands by complete examination exactly what it says. There are good reasons why a complete examination is not done. One very valid one is that the expense would be prohibitive, and the other is that no doctor would have the inclination or perhaps the right to do a lot of tests on a case which from the nature of the known facts could not have a bearing on the disease for which search is made. Nothing is more stimulating or interesting than an honest effort to ferret out the true causes of a patient's illness; nothing is duller than following a cold and fruitless trail just to satisfy the fancy of the patient. Consequently we very commonly hear patients say they have had a complete examination;

and very rarely hear a doctor say he made it complete.

We need to understand what diagnosis must be to carry the weight to which the word entitles it. Ordinarily our patients are satisfied to have us say they have one single thing. I should prefer to be thus satisfied. But one of the most frequent errors made by the profession is failure to recognize all the pathologic conditions in the case in hand. This failure is due to a feeling inherited from our premedical days, that illness is likely to be a single disease, and to the satisfaction we derive from finding an adequate explanation of the complaint; perhaps to a certain indolence and lack of training which retards us from finishing the work in hand. This is all the more readily done, since a diagnosis of one condition is usually entirely satisfactory to the patient. When laymen think of illness they think in terms of single causes. The word diagnosis should not be used as it is; if one says he diagnosed measles, he may be correct; but it is not enough. He should diagnose all that the patient has, and correlate the various things present in such manner as to show the relation a more obscure condition may have had in causing the more patent, and what influence it may still have in determining the treatment and altering the prognosis. A common error is to rest supinely on an accurate diagnosis, and though the patient is seen frequently enough yet to allow some annoying or fatal complication to make advanced progress before it is recognized. It is a terrible thing to think of a doctor who treats a patient for a boil and loses that patient. It must look horrible to the layman. Yet the diagnosis of boils is the simplest thing in surgery. If the diagnosis had gone further, as it should, and found that before the boil was diabetes, or following it was septicemia, the prognosis could then be immediately adjusted to the eventual outcome, and all justification of censure avoided.

This conception of diagnosis requires great effort of the physician, incisive intelligence, superb judgment, vast experience, eternal vigilance. Of the patient it requires willingness to have an intelligent study of his case, patience during the trying, tedious hours or days during which he must remain in doubt, and readiness to pay the price; for it costs money to make a diagnosis. The competent diagnostician often is compelled to spend hours in the study of a difficult case, just as the judge of a court does; he often has also to incur other expenses, sometimes considerable, and to call into consultation experts in other lines. Such are the facts, and it is only by following this course that accuracy in discovery of hidden maladies may be attained. It is less an art than it is profound knowledge, horse-sense, and hard work. The men who could look at your tongue or ask you a couple of questions and instantly submit the most profound diagnosis and prescribe infallibly for it are all dead—I had almost said "Thank God." They remind one of those who can from a drop of blood read the secrets of sex, of pathology, of diagnosis, of prognosis, and all the indications of extensive treatment. There is no place in the enormous mass of medical information for such instant genius.

It has already been stated that diagnosis is a matter of making a case of the evidence adduced in the study of the patient. Here, as in legal cases, the physician, who is the sole and final judge, must bear in mind the important fundamental rules: (1) The fallibility of the witness; (2) the credibility of evidence; (3) negative testimony. These apply all the way from the action and the statements of the patient to physical signs and symptoms and to laboratory findings. The older physicians have doubtless observed how the word pathognomonic, so glibly used in former times, has disappeared from medical parlance; it is dead language. In making a diagnosis, we start out with two facts: The patient is sick or

thinks he is; and if he is, something has made him sick.

The diagnostician begins his study of the case as soon as he is introduced. He must needs have a searching look, must study the appearance, the manner of his patient; must gather at a glance the complexion, the state of nutrition, the apparent age, the agility, the pallor or ruddy glow of the skin, must see a thousand things in an instant, and, what is more important, must register them mentally or on paper for reference. These things are evidence. How does he walk? How does he sit down? Does he sefuse to sit at all? Is it impossible for him to stand? Is he alert? Is he trustworthy, or is he probably a liar? Who is with him? Would the presence of his companion incline him to lie when you uncover his soul and leave it naked until you have finished? If so, you need not hope for the truth. Do not inquire into such until you remove all cause for lying; then demand the truth. There is another type, rare but real, who lies just to see if the doctor is clever enough to discover his illness, and who does not wish to give information; he just wants the doctor's opinion. All good doctors have an opinion about each and every such individual, and the opinion is clear-cut and emphatic, but it is such that its expression before a Christian audience would be disgraceful. With such the scientific doctor can have no dealings. This preliminary study of the patient is very helpful in the interpretation of his statements to be made subsequently. That is the reason the doctor prefers to gain his information directly from the patient if practicable, instead of from a relative or friend who comes along. Hear-say testimony is incompetent; let them tell what they know and let him who knows it tell it. How can any individual tell how another's headache feels? Let him tell it. The friends and family may be able to tell how the patient acts during his pain, but we do not consider them competent to interpret. That is our duty; often enough we are misled into the conviction that a malingerer is a sufferer, and sometimes the other way around.

Next comes the history of the case, methodical, in detail, written, sought in a routine fashion. It should be such a history, not as relates to the case in hand, but just a history that might relate as well to any other illness; a history taken with the view that if anything in the past life, a disease, an operation, an accident, a habitat, a habitation, an association might perchance give a clue to the correct interpretation of the present complaint; or by suggesting a reasonable cause, explain a present pathology. This history cannot be taken perfunctorily; it must be a search for all the facts that pertain to the case, and done with an astuteness that can read the truth from the eyes of the patient whose mouth is full of falsehood, or which knows from the demeanor of the patient and from his sincere and consistent statements that he is telling the whole truth. This astuteness must be equal to the task of reducing to actual size the statements of those who habitually exaggerate their utterances, or who, trying to tell the truth, overstate it because of fright or misrepresentation of the actuality. It must go to the trouble of inquiring after important history by altering the questions put until the examiner finds what he wants or convinces himself that it cannot be found. The most valuable historic evidence is often looked upon by the patient as the most trivial, even to the point of forgetting it entirely.

The rule for obtaining the history of the present illness and its symptoms is the same as for the previous history. This brings the case to the physical examination. It should be emphasized, over and again, that no physical examination should be undertaken when either physician or patient has not sufficient time. It is too important to rush. Not long since a patient came to me desiring a diagnosis of a serious upper abdominal complaint at two o'clock, and stated that she must catch the three o'clock

train. That would have been a farce. I could perhaps have told something worth while, perhaps not, probably the latter. But why should I hazard a guess as an opinion, and why should the patient risk her life or her health on any man's guess? If a guess is wanted it is cheaper for the patient to do it himself; it may not be altogether as good, but I have seen it too often prove embarrassingly better.

Some question has been raised about complete examination. None can be raised about a complete physical examination. That is always necessary in case of serious illness, and should be considered necessary in most minor illnesses. There is no reason why physical examinations should not be complete except that the doctor or the patient should be unwilling. In this case, they should agree to separate as friends. More failures in diagnosis come from imperfect examinations than from ignorance. No examination can be complete on an unstripped patient. We have got to see, feel and hear, often inaccurately enough at best. Then why should our work be crippled by increasing the equation of error? It is easier for the doctor and patient both to escape complete examinations, but a reputation is at stake on one hand, on the other health or life. It is not fair to either. When the attention of doctors is called to this they say "Yes, yes, that's right, amen, amen." That doesn't help. The only thing that does help when we get such a stimulus is to go home and begin and continue to make examinations right. It's incredible how much better a doctor becomes when he gets converted to this practice. It costs more. It's worth more and everybody able to pay his bill knows it is; and when they get sick they should want always to know first what's the matter, not simply what, but all that is the matter.

Allusion has been made to the fallibility and to the credibility of the evidence found in a case of illness. If it were true that X plus Y plus Z equals appendicitis, and other formulae other diseases, diagnoses would be so simple that a child could make them readily. Medicine would resolve into the cause and the treatment of disease. Occasionally the simple formula is found in actuality. It is more likely to show up simple as the disease progresses. Advanced cases of disease in general are much more easily recognized than early cases, but this carries with it a poorer outlook. It is frequently true that the easier the diagnosis of a certain disease the worse the prognosis, the more difficult and hopeless the treatment. When X, Y and Z each equals zero, when they are absent as symptoms, or when one or two of them is absent or present in lower intensity than usually, or when one or more of these is displaced by other symptoms, the diagnosis becomes the task of a full grown man, learned to the limit in the lore of his specialty. The importance of such a diagnosis may be shown by the fact that the treatments of two conditions which are to be differentiated from each other are sometimes diametrically opposite. A tale is told of Dr. Agnew in his younger days, how he was called into consultation with several older physicians to decide whether a swelling in a banker's groin was an abscess or an aneurysm of the femoral artery. If it was aneurysm incision meant death to the patient; if it was abscess failure to incise meant death. Agnew diagnosed abscess. All the other consultants except one withdrew from the case and it was Agnew's lot and duty to assume the responsibility of his diagnosis and operate. Thus came the cure of his first important case, and his first fee.

These variable symptoms even go further than to be absent or only insignificantly present. They frankly imitate other diseases; typhoid simulating malaria, sepsis simulating either. Most surgeons of extensive practice have hidden somewhere in the recesses of memory a case of pneumonia whose appendix they mistakenly removed. Symptoms even go further than this. A

pain in one part is often due to a lesion in a rather remote part, going so far as to cross to the side opposite. If to this you add the possibility of the presence of partial or complete situs transversus the difficulty increases and one can see how wakefulness and watchfulness must be the constant guardian angels of the doctors.

Since our modern conception of focal infection has been established and popularized, we are confronted with the sometimes difficult determination as to whether a derangement at a given point is due to local or remote pathology. Often we decide in favor of the latter, which accounts for the vanishment of some of our old diagnoses of rheumatism. It must also be determined where this focus is that causes this remote pain or swelling or stiffness, and, if cure is to result, to satisfy ourselves whether there may not be more than a single focus. If the foci are multiple and the patient unable to tolerate eradication of all of them, we must decide in what order their elimination should be undertaken to insure the earliest relief. It is not enough to remove the tonsils of a case having also a bad gallbladder, or vice versa. We would gain much in public confidence if we had physical examinations (may I say especially in our tonsil cases) and frankly told them the whole truth.

Diagnosis must determine what ails the patient and what else ails him, or whether anything ails him. It must indicate what the treatment shall be and whether the general condition will enable one to do the necessary work safely; whether the patient will stand the operation. This cannot be too strongly impressed; it is a rather too common failure in certain lines of work. The diagnosis must never stop at finding the cause of complaint; it must find the condition; the general condition of the patient. The word diagnosis means "I know through," and through we must know, throughout, if we are to measure up half way to the task we have assumed. How easy it is to get a brief history, do a very limited examination, recognize a hypertrophied prostate and refer the patient to the surgeon with recommendation of prostatectomy, when arteriosclerosis is extensive enough to kill him shortly without the added burden of surgery. That is not diagnosis, it is a disgrace. What ails the patient? Can it be relieved? Is the remedy more dangerous than the disease? That is what the patient wants to know and has a right to demand and the duty to pay for. When and where this kind of diagnosis is made mortality, particularly from surgery, is less, unnecessary operations are fewer. It is much easier to recognize gallbladder disease than to know whether the heart has undergone sufficient myocardial degeneration to make cholecystectomy a hazardous procedure; much easier to recognize an abscess than the hidden diabetes behind it, which determines the prognosis almost exclusively as a grave outlook.

It has seemed wise to consider negative evidence and credibility of evidence together, for they are so closely allied in diagnosis as to be practically inseperable. To put it into a more succinct form negative evidence is often utterly incredible, accepted as valueless, and consequently ignored. This is an every day experience. It is the inner significance of the common statement that we do not see typical cases any more and is so much the more to the credit of the profession. Diagnose before the disease has had time to show too many of its characteristics, before it advances far enough to be typical and you will be great; great will be the reward to your patients in reduced morbidity and mortality. I can conceive of no more grievous error, none more dangerous, than dependence upon the constancy of any one symptom. Many have gone upon the rocks because they believed that appendicitis or other inflammatory lesions were to be ruled out because the leukocyte count and temperature were normal; others because they forget that noninflammatory processes (for example malig-

nant tumors) may be attended by rather high and persistent leukocytosis and fever. It is by interpretation of all the evidence that diagnoses are to be made.

The layman often has unwarranted faith in X-ray examinations. I fear this faith may be unwarrantedly encouraged by members of the profession sometimes. If we could once fix in our minds the fundamental conception of X-ray examination whether by fluoroscope or skiagrams and have the integrity to tell the truth about it, a great forward step would be made in understanding the successes and failures of X-ray diagnosis. It is marvelous, but not perfect. The principle lies in the fact that all X-ray studies are studies of shadows; and if the thing sought by fluoroscopy or skiagram casts a shadow of the same density as that of the structure in which it lies, then obviously there can be no X-ray evidence of its presence. A noteworthy example of this error is the great frequency with which such examinations have in the past failed to reveal gall-stones, often misleading the patient into an avowed or secret conviction that no stones were in his bile passages. If we would interpret negative evidence as nescience instead of denial, we would approach much more nearly to the truth.

Two things surgery must avoid if it is to serve well, two incompatible things, procrastination and haste. There is no defense for bringing an unstudied, unprepared patient into the hospital and operating on him immediately, without due investigation of his case, unless his disease is an emergency. If he knew the truth about such things he would not allow it. But so long as he and we are content to accept, on guess, that he has this one malady and that he is all right otherwise, so long must he and we bear the consequences, which do good to neither; he the consequence of increased mortality, incomplete and unnecessary or incorrect surgery and failure to be cured; we the chagrin of unscientific work and the torments of an outraged conscience; yes, even the latter, for we know it isn't right when we do it. Surgery is a serious business, and justifies the employment of enough time, enough study, enough consultation, enough laboratory work to enable us to know what risk we assume, and to tell the patient what the risk is; he has the right to know, constitutional and inalienable. Besides, perfect knowledge and perfect frankness are the two characteristics which, coupled with skill, appeal most to the people, who depend on us for health and life; on whom we depend for a livelihood. A freak or a fool has no place in practice.

A single pointed illustration will be given, shameful as it may seem to give it. It seems to be true that we are seeing more and more cases who have had their appendices removed with no benefit, and statistics are at hand which very clearly and, I think, very dependably show that the mortality of those operated for appendicitis has increased 30% in the last few years. The removal of the appendix for other causes of symptoms is plainly due to mistaken diagnosis.

The increase in the mortality may be attributed to many causes, the responsibility for which, with one possible exception, rests on the shoulders of the profession. The exception is considered first, but it would seem to be unimportant. This exceptional cause for increase of mortality may be found in an increased number of families who refuse to call a physician early or who undertake to treat appendicitis without calling the doctor at all. But this explanation is unsatisfactory, for the laity know probably more about the symptoms, risk and treatment of appendicitis than any other surgical lesion. It is utterly unreasonable to explain the increase on this count.

Then the profession must take the blame. Are we diagnosing acute abdominal pain as well as we might? Are we prescribing for it over the telephone without having seen the patient? Are we fully convinced that surgery is the only treatment for ap-

pendicitis? Do we really know that the administration of purgatives, by far too frequent, instead of benefiting the patient, actually increases the rate of perforation 400 percent? Do we really understand that the operative mortality in clean appendix cases is less than one in a thousand, and in perforated cases probably ten or more in a hundred in average hands? If we do not know these things, the public welfare requires that we get informed at once. Do we doctors and laymen know a surgeon when we see him? Or do we think that every man who is willing to cut human flesh is a surgeon? What training has your surgeon had? Under whom did he train? Where did he train? How long did he train? How much work has he done? What kind of facilities and what kind of collaborators has he? Does he diagnose his cases? Is he slow to study and swift to operate? Is he really a surgeon or just a plain operator? These questions may seem hard; they may seem to imply a hard and unsympathetic answer; but somebody's to blame for the increased mortality of appendicitis and other similar things and I am sure it behooves us in the profession to learn first where the cause lies and what it is.

We have assumed a great responsibility, as great as human life. Facilities are at hand for continued improvement of our work, for better study, better results, wider influence. Are we equal to it? I do not mean intellectually equal. That we are. But have we the moral courage to admit our obligation and the grit to live up to it? Let us ask ourselves if there is a newer, better way, and at the least to compare it with the older methods and decide whether it would be to every one's interest to adopt the advantages that may be constantly had by keeping pace with the amazing advances of scientific research.

232 Lambuth Building.

UROGENITAL AILMENTS OF MIDDLE AGE.*

H. W. E. WALTHER, M. D.,
NEW ORLEANS.

The urologist often dwells upon the indiscretions of youth. To vary the program, swinging the pendulum the other way, and attempting to portray disorders which are observed chiefly after the fifth decade, is the object of this communication. Although conceded that the approach to management of diseases of youth and middle age differ radically, I feel that the matter has not been stressed as it might be. Much more conservatism is needed in handling old people than is demonstrated in many quarters. Particularly does this apply in genito-urinary patients.

Beginning with the renal and ureteral lesions, we encounter no end of pathological states which at times harass even the best among the profession. Although congenital malformations usually produce diseased organs in early adult life, there remains a definite group of conditions which fail to manifest themselves until middle age. Hydronephrosis, pyonephrosis, nephrolithiasis, hypernephroma, nephroma, hydroureter, ureteral stricture and stone of the ureter,—these are but a few of the common conditions we are called upon to relieve. In many instances much can be accomplished by non-surgical procedures.

In pyelonephritis lavage of the renal pelvis with some antiseptic is so universally accepted a procedure of relief as to need no special emphasis here. With hydronephrosis the retention catheter allowed to remain in the renal pelvis over a period of days, in some instances weeks, very appreciably relieves pain, high fever and a train of accompanying symptoms produced by retained toxic waste products. Where a calculus totally blocks the uretero-

*Read by invitation before the Sixteenth Annual Meeting, Association of Surgeons, Illinois Central System, Biloxi, Miss., December 3-4, 1926.

pelvic outlet, again the retention catheter serves a useful purpose in re-establishing drainage. Even if no permanent good accrues from such a treatment, by its employment a patient can be gotten in shape for surgery with more hope of ultimate success than if the procedure were ignored.

Certain cases of advanced pathology in the upper urinary tract will not respond to transureteral manipulation and here surgery might become imperative. In these instances conservatism again should be practiced. Rarely are we dealing with patients with normal hearts, lungs, or kidneys. The selection of the anesthetic is important. Local infiltration with novocain where this mode of aleviating pain is applicable proves a boon to many. Should the operator feel that he is not sufficiently skilled in local anesthesia, or where the patient fails to co-operate, he should insist upon ethylene and oxygen inhalation. Sometime a combination of local with gas proves most satisfactory. Then in dealing with kidney lesons, nephrotomy should be practiced in every instance where nephrectomy can be avoided. Mere incision and drainage for the liberation of urinary stasis, pus accumulation or stone impaction produces far less shock to the patient than where nephrectomy is practiced. Apart from the shock resulting from prolonged traumatism, the fact that the other kidney is often not in perfect condition militates against taking out an organ whose mate might not be able properly to sustain life. This dictum should obviously hold in all renal surgery but most particularly does it apply in sufferers of middle age. I wish to voice a protest against too indiscriminate surgical intervention in nephroptosis. In thin subjects apparently suffering from wandering kidney it is the exception rather than the rule to have nephroxies hold. My observations, extending over a period of sixteen years, lead me to believe that surgery is a failure in this type of lesion. Supportive belts or corsets and an attempt at building up these individuals, thereby increasing the fatty capsule surrounding the kidney (which holds it in position) will do much towards relieving symptoms. Ureteral calculus is a condition which causes excrutiating pain to many. The number of appendectomies that have been performed for pain due to right ureteral stone will never be known. We should employ more frequently the roentgen rays and urinalysis in obscure abdominal pain. Much can be done in the way of alleviating the ureteral colic, as well as aiding in stone expulsion, by the use of ureteral catheters and dilaters. Here again the retention ureteral catheter has a place. Only where the stone cannot be made to pass, and where it is clearly evident that serious embarassment to the kidney is imminent, should ureterotomy be undertaken. Ureteral stricture and kink demand cystoscopic attention. Until recently stricture of the ureter went unrecognized. It occurs far more frequently in women than in men and causes much misery. Gradual dilatation with graduated bougies gives prompt relief although, as with urethral strictures, the treatment must be repeated at intervals.

In suspected lesions of the upper urinary tract, urography is routinely employed in every case in order that no anomaly shall go undetected. By the painless introduction of sodium iodid solution through the ureteral catheter, while the patient is on the X-ray table, many obscure lesions are recognized that could not be otherwise detected.

Retention of urine in old men is a condition every one of us is called upon to relieve. As new growth of the prostate is the most common factor in the causation of retention it becomes a problem as to what is the best method to employ for relief of the condition. Whether to rest satisfied with frequent catheterization or whether it appears wiser to subject the patient to suprapubic cystotomy is a problem that requires much consideration.

It is often observed that the prostatic growth is so extensive that the catheter fails to pass the obstructing bladder neck. This is not due to a stricture nor is it caused by the prostatic growth totally occluding the bladder outlet. The trouble is that either one of the lateral or the middle lobe is so large, and is so situated, that only rubber catheters stiffened by a wire stylet or silk catheters with a Coudé olivary tip will ride over the obstruction. Ordinarily it is more rational to tie in an indwelling catheter for permanent (though intermittent) drainage than to subject the patient to several catheterizations a day. Most of these cases demand hospital care. An investigation of the heart, lungs, blood pressure, renal function and chemical study of the blood should be carried out to determine the status of the individual and his probable rating as regards surgical risk. If the patient be one in which ultimately a prostatectomy is contemplated the choice of two procedures, in dealing with the first stage, offer themselves. The one, as mentioned above, is the indwelling catheter, used largely at the Mayo Clinic today; the other, the insertion through a stab wound, of a Pezzer catheter, and suprapubic drainage. Surely the indwelling catheter should always be tried first. Some patients tolerate it nicely; others will not tolerate it for an hour. Where the indwelling catheter seems to aggravate rather than relieve, suprapubic cystotomy is resorted to. A large Pezzer catheter (36 F), of the best quality of rubber obtainable, is selected. A good catheter need be changed only once in every three or four months. Each time a new one replaces the old we drop down a few sizes in order to facilitate reintroduction. Not infrequently this is as far as we dare go towards relieving many patients who demonstrate, by subsequent tests of renal function and blood chemistry, that their reserve is low. It would take us too far afield to go into all the details that associate themselves with the care of prostatism. Suffice to say, where the patient thrives under adequate bladder drainage, sufficient time is permitted to elapse before prostatectomy is carried out. This time can only be determined after repeated painstaking studies of blood pressure, renal function, and blood chemistry which must become stabilized before operation can be attempted with safety. It is now my custom to do a bilateral vaso-litigation at the time prostatectomy is performed. Just to what degree this procedure "rejuvenates" the patient is debatable. But it does prevent epididymitis from complicating the surgical removal of the gland and is a precaution worthy of consideration.

While on the subject of the prostate, chronic inflammations of this structure along with chronic seminal vesiculitis deserves emphasis. The role that these organs play in the perpetuation of foci of infection in the male cannot be overestimated. A physical examination on a man over fifty is not complete unless a rectal palpation of the vesicles and prostate has been recorded.

Especially important is a microscopic examination of the secretion from these organs. Many men in advancing years complain of vague pains about the body that are directly traceable to infection here. Routine rectal palpation still needs emphasis therefore. Systematic massage, accompanied by physiotherapy in obstinate cases, invariably brings relief.

Stone in the bladder of either sex demands removal for two reasons. First, it acts as an obstructing factor to the outflow of urine from the bladder which, in turn may, by back pressure on the ureters and kidneys, produce serious renal disease. Second, the pain many of these calculi give make life miserable at each voiding. Only large stones and those in contracted bladders should be removed surgically. The lithotrite is an instrument that has been much neglected by the surgeon. Crushing stones in the bladder requires some skill but the advantage, of being able to remove piecemeal a stone through a urethral evacuator instead of subjecting

the patient of middle age to a major operation, should be self evident.

No group of urological ailments of advancing years give more apprehension than tumors of the bladder. The fact that most of these lesions are malignant makes their managment a disparaging affair. Even today only too few of the lay public realize that cancer may remain symptomless for years before making its presence known. Without symptoms you can hardly expect a patient to consult a physician. Yet were periodic health examinations more universally adopted many carcinomatous excresences would be recognized in their incipiency when irradication is easiest. So often a patient is seen with a painless hematuria (of only a few days standing) but at cystoscopy we recognize an infiltrating growth covering the entire vesical trigone—sufficient proof that the tumor is one of advanced type and one not infrequently found to have already metastisized to neighboring structures and therefore frankly inoperable. Such a picture as depicted above, holds equally well for carcinoma of the prostate. Usually a symptomless ailment in the early stages. Only too often by the time the clinical diagnosis is made mastastases are evident in the seminal vesicles, spine, ilium, and femur. Truly we are confronted with a most helpless state of affairs. Radium and X-ray have done little to mitigate the advance of the process. Where the hemorrhage assumes alarming proportions, suprapubic cystotomy is demanded to put the bladder musculature at rest. By a liberal exposure we destroy with the cautery as much of the growth as possible. Naturally all accessible bladder growths are resected, but with prostatic malignancy, one had best remove only the obstructing part of the tumor with high frequency cautery. It is often deemed wisest to leave prostatic cancer unmolested for fear of disseminating carcinoma cells.

Diverticulae of the bladder wall are often the cause of vesical symptoms in the aged. They are readily recognized at cystoscopy, but their scope can only be determined by cystogram. Surgery offers the only cure but in the aged, where major manipulations might prove disastrous, permanent catheter drainage, either indwelling or suprapubic gives comforting relief.

In neurological conditions affecting the urinary apparatus, cystoscopy frequently reveals evidence of a diseased cord before the reflexes are permanently impaired. The typical "cord bladder" observed in every cystoscopic clinic, with the characteristic placement of trabeculations about the ureter orifices, are of considerable value to the neurologist in arriving at a concise diagnosis.

Phimosis frequently gives no trouble until middle life when, by the intervention of balanitis or balanoposthitis, circumcision or dorsal slit becomes imperative. It is a mistaken attitude that many of the profession take that circumcision is to be practiced only on male infants and growing youths. Papilloma about the prepuce and glans in the male and at the urethral meatus in the female (caruncles) are met with fairly common. These lesions must be forever classed among the precancerous manifestations of advancing years and should be promptly destroyed. Their removal is best accomplished with some type of cautery, the best of which is the high frequency spark. Hydrocele in elderly men is frequently seen of such size as to cause discomfort, many of these cases of extreme size have been concealed by the owner for many years until by sheer weight the patient is forced to seek medical relief. Whether to practice the radical operation in these folks or whether it appear sounder judgment to simply aspirate these serous accumulations, rests with the individual. In my own practice aspiration in the office seems the wisest practice. Urethral stricture, whether in male or female, may produce a chain of symptoms most distressing. Many come seeking relief for "bladder trouble." This is particularly true of

women. I have treated a multitude of female sufferers from vesical distress and given immediate relief by dilating the urethra up to 28 or 30 F. Many of these individuals had been given prescription after prescription for "cystitis" without relief. Urethrotomy, either internal or external cannot be too emphatically condemned. Cutting operations on the urethra invariably add insult to injury. By the use of silks filiforms and bougie followers, ninety-nine out of a hundred strictures can be successfully dilated. In rare instances where the process has gone too far for instrumental relief, a suprapubic cystotomy with retrograde dilatations offer the maximum relief with a minimum tissue destruction.

It is hardly possible completely to cover the urogenital field in a paper such as this. Only the more salient features can briefly be enumerated. But sufficient has been said, I trust, to reawaken your interest in behalf of the aged patient. The attitude so many practitioners take, that because the patient has reached a ripe old age nothing can be done to relieve certain definite symptoms, seems truly a reflection upon our calling. Though radical therapy is to be condemned, palliative measures are ever welcomed. A sympathetic understanding of the ailments of old age bring just reward and I therefore voice a plea in their behalf.

INFLUENZA AND ITS COMPLICATIONS.*

F. J. KINBERGER, M. D.,

NEW ORLEANS.

According to Forscheimer, all widespread epidemics of colds should be looked upon as influenza. Observations during the recent epidemic would lead us to diagnose the condition as one of influenza, when we study the group of symptoms as presented in the various cases.

The several clinical varieties can be divided into the catarrhal, respiratory, gastro-intestinal and nervous forms. From experiments made by Wollstein the real habitat of the influenza bacillus is in the bronchial secretion. Her findings seldom revealed the presence of the influenza organisms in the secretions of the nasopharynx or discharge from suppurative otitis. It is rarely found in the blood, but has been isolated from the spinal fluid in pure culture.

Influenza is one of the most highly contagious diseases in existence. It spreads with great rapidity, particularly in institutions, crowded office buildings, etc., where observations show that fully 50% of those exposed become affected. Efforts should be made to isolate all cases of suspicious influenzal pneumonia as soon as diagnosis is made. Infants are thought to be immune, but recent observations show this to be wrong. The majority of my patients were between the age of one month and six years.

Symptomatology: The greater number of cases presented the catarrhal symptoms. The onset was usually acute, nasal discharge, mucus in character, red inflamed throat with irritating cough, sometimes croupy, with temperature running a spasmodic course—at times only 99—then suddenly rising to 103 or 104. This was not accompanied by any unusual nervous symptoms. Usually within 36 hours an otitis would manifest itself. As a rule the temperature would rise, causing restlessness in the infant and complaint of more or less pain in older children. These cases would run their course in about 4 or 5 days, with no further complications.

In the respiratory type, I found a group of varied symptoms. The acute onset, with typical red throat, coated tongue, injected tonsils, irritating cough due to a tracheobronchitis and negative findings in the chest. The cough associated with this form was of a very irritating character. The ordinary sedatives or inhalations had little

*Read before the Louisiana State Medical Society, Monroe, April 15-17, 1926.

or no effect. It looked as if the condition had to run its course.

In another form these cases would have the usual symptoms, in addition a rapid invasion of the chest, causing a typical capillary bronchitis. The examination of the chest would show numerous fine rales at the base of both lungs. This was accompanied by more or less prostration, dyspnea, cyanosis and fluctuating temperature. The lung findings were fleeting in character. The rales would practically disappear only to return in a most pronounced degree.

I believe the use of citrate of soda to be harmful in this type of pneumonia and recourse to atropine was necessary, and I am sure helped my patient.

In another case of pneumonia the initial symptoms were abdominal pain, vomiting, loss of appetite, with lung examination showing an involvement of the upper right lobe. Persistent loss of appetite seemed to worry the patients. As in all apex pneumonia the temperature remained high. In this case, the ankle and wrist joints caused considerable pain. Middle ear was also a late complication. The heart action was usually very fast. According to Cautley, the toxin of influenza has a powerful influence on the heart muscle, and may cause tachycardia, arrhythmia, attacks of collapse with small thready pulse or even angina. The prostration in some of these little patients was quite marked. Profuse sweating is a frequent nervous symptom. Joint pains were often noted. The children stated that the bed clothing hurt their toes.

The gastro-intestinal type started with severe vomiting, nausea, sometimes diarrhea, high temperature, abdominal pain. There was no rigidity on palpating abdomen, but complaint of pain on pressure. According to Brenneman, enlargement of the mesenteric glands may be the cause of abdominal pain. The failure to retain fluids and the diarrhea would produce signs of dehydration that were quite alarming. In two instances I noted an enlarged spleen.

The cerebral form I did not see in my group of cases. These usually have high temperature, great prostration and nervous manifestations in the form of intense restlessness, delirium, convulsions, etc. It was quite frequent to see a scarlatiniform rash over the body. The absence of the strawberry tongue, however, ruled scarlatina out, and on later observation there was no desquamation.

The blood findings showed usually an increase of the leococytes, indicating the invasion of secondary organisms.

In only two cases, one observed in children's service in Touro and in one private practice, did the blood show a leucopenia.

One case with simple catarrhal symptoms giving the following picture: Leucocytes 6,750, N. 51, S. M. 44, L. M. 4, E. 1. There were no complications.

The other case in which the X-ray showed an early bronchial infection: The leucocytes 5,750, differential count N. 54, S. M. 39, L. M. 7.

In the other cases the usual picture was an increased white count, ranging from 14,000 to 22,000, with increase of polymorphonuclear neutrophiles.

In a case following broncho-pneumonia, with otitis and suspicious mastoid, an increase of leucocytes from 18,000 to 22,000 in 48 hours warranted operation, even though the X-ray did not show much destruction in the mastoid cells; operation revealed quite a bit of destruction. The culture showed pneumococcus and a diphtheroid organism. The urinary findings invariably showed a marked acetone reaction, slight trace of albumin and occasional hyaline cast.

In one child his attack was ushered in with symptom of an acute nephritis. Blood casts of all kinds, pus cells, albumin, etc., and on culture showed pneumococcus and staphylococcus aureus. On the third day he developed an irritating cough, with an

otitis, which cleared up on phenol and glycerine. His urinary findings gradually returned to normal.

I believe, of all complications, the middle ear gave us the most concern. The mastoid and accessory sinuses next. What later trouble will ensue from changes in the lungs remains to be seen.

Harlow Brooks remarks on the frequency with which pleural thickening and pleural-exudates occur after pneumonia.

Treatment: The general care and treatment were symptomatic. Immediate isolation of case if possible. The pneumonias were treated with alkalies, counter-irritation. Diet was usually carbohydrates, potato soup, cereals, orange juice, and etc. I usually omitted milk from diet. Fischer advices the addition of buttermilk, claiming it to be non-toxic. Plenty of fluid.

My observation on the pneumonia cases was that they terminated by lysis rather than crisis.

Abdominal pains were rather troublesome. The use of aspirin, pyramidon and warm applications usually helped.

Pains in the extremities were met with hot applications. In one case that devoloped latent tetany, with typical carpopedal spasms, large doses of calcium bromide and hot applications relieved the symptoms. The child is now on cod liver oil and phosphorus.

In the gastro-intestinal cases where the patient was unable to retain fluids by mouth, injections of 4 ounces of 5% glucose by rectum every 4 hours with 20 to 30 grains of soda bicarbonate helped. If the patient could not retain by rectum, the glucose was given by hypodermoclysis.

Stimulation in cases of pneumonia, such as brandy, digitalis and camphor, usually helped.

3601 Prytania St.

Dr. W. M. Johnson (New Orleans): Dr. Kinberger has given us a very interesting, clear-cut paper, and I thought it might perhaps be permissible if the ear, nose and throat man gave a few of his ideas along the line of the complications of influenza. Intranasal conditions predisposing to accessory sinus diseases are particularly those interfering with the normal ventilation of the sinuses. The normal relations between the frontal and maxillary sinuses are very close. In the typical nose both cavities open into the infundibulum, a trough which opens in front into the frontal and behind into the maxilliary sinus. While the etiology of infective sinusitis is not confined to influenza, one may accurately affirm that the largest proportion of cases is a sequence to or a complication of this infection. The diagnosis of sinus involvement in these cases is based upon localized pain, geographical appearance of pus in the nose, transillumination and x-ray interpretations.

The method of treatment of these cases is of the greatest importance. Personally, I am opposed to immediate operative interference in acute cases either by puncturing the antrum, removing the middle turbinate or breaking down the anterior walls of the sphenoid. The greater number of fatalities in sinusitis results from the operative interference rather than from untreated, unhampered progress of the disease. Operative interference is justified only when there is agonizing pain, high temperature, failure in obtaining drainage and unsuccessful treatment.

We find sinusitis in children lots more frequently now than we did in the past. I think we must have and do yet overlook a great many of them.

Dr. Chaille Jamison (New Orleans): Whenever I hear of influenza as a general diagnosis I always wonder exactly what is meant. I saw a good deal of "flu" during the war, but when we say "influenza" we imply an infection with Pfeiffer's bacilli; that is, in a strict sense. The majority of cases that I have seen, and that have been examined by competent bacteriologists, do not show Pfeiffer's bacillus, and particularly the complications that occur in influenza are not complications (and that is particularly true of the more severe ones, the pneumonias) with the influenza bacillus. The organism that gives the trouble, as a rule, is a streptococcus.

I don't mean to attack anything that Dr. Kinberger has said—not for an instant, but I do feel that for the sake of scientific nomenclature we are using the term "influenza" to cover everything from a pain in the ear to a pain in the foot, diseases of the chest, ear and sinuses, and

I do not believe that Pfeiffer's bacillus is at all responsible for most of those conditions.

Dr. Kinberger (in closing): In the fore part of my paper I mentioned that the majority of cases should be looked upon as influenza. However, it is very seldom that the influenza organism has been found. I think the difficulty in children is to get the proper sercretions for examination. We know it is found in the spinal fluid, but the secondary organisms are the ones that usually give us most trouble. I agree with Dr. Jamison that it is impossible to say that a case is definitely influenza. However, the group of symptoms that have been ascribed to influenza fit in with the majority of cases that we see in daily practice.

FOCAL INFECTIONS FROM THE OPHTHALMOLOGISTS' AND OTO-LARYNGOLOGISTS' VIEW.*

LUCIEN S. GAUDET, M. D.,

NATCHEZ, MISS.

Not so very many years ago, focal infections held a small or minor thought in medicine. That was because the medical profession had not yet placed its vital importance in its proper realm in medicine, but as time has gone on, focal infections have taken their proper places in the cause and production of pathological changes within the human body.

Often medical men would reason with themselves and with others as to why, of humans living under like conditions and circumstances some would have appendicitis, others would not, some would have a kidney or gall bladder trouble, others would not, and so on and on down the line. Of course all realized that there was a cause coming from within the body of the person so affected.

And now comes the fact that this cause in fully 75% of these cases is due to focal infections, and rightly so. The blood stream in its circulating functions, reaching every part of the body, its different organs, represents a continuous moving current which can and does carry along in its stream any foreign substance that is not attached, and small enough to move along until it comes to a vessel whose lumen is smaller than the foreign body, and there it stops. Now let us see.

What is a focal infection? Why do some have focal infections and others not? These are pertinent questions, but are answerable.

A focal infection is best described in a simple way as follows: A point where pathological changes have taken place, plus bacterial infection, which may remain localized or radiate symptoms and other pathological changes to other portions of the body, than the point or location of the original or focal infection. Now the causes of the pathological changes that may take place will be best answered under the question why do some have focal infections.

Many things go to advance the cause of focal infections in the human body. All persons do not live under the same conditions, do not have the same hygienic advantages and surroundings, do not have the same body functions or metabolic changes, do not have the same body resistances and so on. Neither are all infective bacteria of the same virulency. Under this question many things have to be considered, beginning from early in a person's life.

Food, clothing, care of the body, care of the teeth and mouth, proper care of the throat, nose and sinuses all come in for a share in keeping the body health in a normal condition.

Today, hygiene as taught in the schools, with proper inspection of teeth, throats, noses, etc., and correction of the defects where found, will in time to come make its proper impression on the health of that generation upon which this is done, with a corresponding better health, and of course a reduction of focal infections. And I am only speaking of the focal infections coming

*Read before the Mississippi State Medical Association, Jackson, May 11-13, 1926.

under my line of work, for there are many other found elsewhere in the body.

Surely, if 75% of all focal infections take place above the clavicle, as many eminent authorities state, and rightly so, if you just take the dentist's opinion, then the subject of focal infections must at all times be new and interesting and of the utmost importance to the dentist and oto-laryngologist, and of more than passing interest to the remainder of our profession.

Experience has taught us enough in connection with focal infections to think first of teeth, tonsils, sinuses at the first call for investigation and location of any suspicion of a focal infection, and if they are guilty parties in the above mentioned percentage of cases, there is thrown a great responsibility on the branches of dentistry and oto-laryngology in the location of these foci.

So often a focal infection is pictured as a walled off cavity filled with pus or infective material, as a root abscess, or a sinus involvement such as a frontal, maxillary, ethmoid or sphenoid trouble, but this is not always the case, as a focal infection may not always be a walled-off cavity.

We may have a chronic diseased tissue whose surface is exposed to the action of certain pathogenic bacteria, and from which may be derived all or some of the phenomena of a focal infection.

Also we have to consider that sometimes the predominating bacteria found on culture are not the ones that may cause the symptoms derived from a focal infection.

Going back again, and considering that 75% of all focal infections are above the clavicle, then the dentist and the oto-laryngologist more than any other specialist in medicine is so situated, as more often to see, observe and treat these conditions, as well as to observe the results on other parts of the body.

Again comes the question: Why so many focal infections above the clavicle?

Because these infections take place along the beginning pathways of the respiratory and digestive functions. In the performance of the respiratory functions, which take place both through the nose and the mouth, there enters air, moisture, heat, smoke, dust, cold, gases, irritating substances and bacteria, infective and non-infective of all kinds, to which are exposed the mucous membranes lining these passageways, which respond to the action of these irritating or non-irritating substances as the case may be, remembering that, insofar as the nasal cavity is concerned, all sinuses with their ostia leading into the nasal cavity, have their inner portions lined with a continuation of the same mucous membranes, and subject to the same pathological changes as the mucous membranes lining the nasal cavities.

There also may exist anatomical, mechanical and traumatic changes in the nasal and pharyngeal passageway further to aggravate pathological conditions, and interfering with proper ventilation and drainage of these portions.

In the performance of the digestive function, there is taken into the mouth all sorts of food, raw and cooked, fresh and spoiled or uncontaminated and contaminated, hot and cold, water pure and impure, moisture, gases, etc., all of the above often times laden with non-pathogenic and pathogenic bacteria.

These substances come in contact with all portions of the buccal cavity, including the teeth, gums, tongue, soft palate, tonsils, pharynx, etc.

In other words, the greatest amount of substances to sustain life and the performance of the functions of the human body are received through the nasal and buccal cavities, with a consequent entrance of a majority of the causes of disease and infection.

Both the nasal and buccal cavities yield rich cultures of bacteria at any time, harmless and harmful.

Take the tonsils and adenoids for instance, especially the tonsils. Being rich in lymphoid tissue, soft mushy, consisting of many folds and cavities or crypts, low resistance, plus heat and moisture, no better field for infection presents itself in the body which accounts for pathological changes in from 90 to 95% of all tonsils examined.

The startling assertion has been made by a leading otologist that all cases of deafness developing under 30 years of age, are a direct result of nose and throat infections beginning in childhood, and can be prevented by proper attention to these infections as they occur.

If this be true, then lies a great responsibility on parents, welfare and school teachers, physicians and especially to the oto-laryngologist himself in the prevention of deafness with prevention within our reach.

Again we see the close relationship between certain eye diseases, as iritis, cyclitis, optic neuritis, etc., and infected tonsils and adenoids, slow to improve under ordinary treatment, with an immediate improvement and cure when tonsils and adenoids are at fault and are removed.

Going further, we have many cases of pain in different portions of the body, muscular, nerve, joint, arthritis, cardiac, kidney gall bladder, circulatory, digestive and other phenomena directly traceable to a point of infection, which may be and are usually teeth or tonsils.

The infections of the nasal and naso-pharyngeal passageways present two groups: one in which you have inflammatory changes of tissue plus infective bacteria; one in which you have inflammatory changes of tissue, plus infective bacteria, with deeper changes in the tissue advanced to a necrosis of tissue and bone, purulent secretion, and a more distinct and further advanced pathology.

Both types are often seen, the first difficult to diagnose, the last named showing more clinical evidence and pathology and therefore easier to diagnose.

The first, however, is made easier with culture tubes and microscope when frequently used. In this respect, Solis-Cohen and his co-operators have brought out a very interesting observation, worthy of much further thought and investigation.

They found that by using human blood as a culture media taken from the same patient or person that the culture was taken, thereby making use of the certain substances that act in a resistive capacity against the invasion of bacteria in the body, to differentiate between the bacteria that were non-pathogenic and pathogenic to the particular body from which the blood and culture were taken, they were able to observe from these cultures the bacteria to which said body was immune, and those that were pathogenic to it.

The bacteria that the body was immune to, would not grow upon this media, but those that were pathogenic, and to which the body had no immunity grow on this media of human blood. This is a very interesting phase in the study of immunity.

Working upon this basis, they made cultures from the naso-pharynx, under the above mentioned conditions, and by making autogenous vaccines from the pathogenic bacteria and using them in treatment were able to get some very good results. This I should judge opens up another field of investigation in autogenous vaccines.

In the second type of infections, evacuation, irrigation, ventilation and drainage of course are the proper procedures, just as local applications would be to the diseased surfaces in connection with the use of autogenous vaccines in the first type mentioned.

I will not go into detail of the focal infections, because I have found that it will lengthen this paper unreasonably, but hope

that it will produce further thought and study among us and probably give us the reason or clue as to why so many vaccines, both autogenous and non-autogenous, are so often ineffective.

DISCUSSION.

Dr. D. C. Montgomery: Doctor Gaudet has written on a most important subject. I feel personally that we are just beginning to scratch the surface on focal infection. The condition is one which may be spoken of in two phases. There is in some instances a secondary infection that must be eliminated as well as the focal infection. In other types of cases the toxemia alone is present, to which our remote symptoms are due. Every now and then we are reading in the literature most excellent papers, accompanied with accurate statistics and complete records. Cotton has recently written on the condition of focal infection in the insane asylum. He makes some rather startling statements, but his records are so complete we must accept them, unless we can prove otherwise. Cotton states that all devitalized teeth are infected regardless of x-ray findings. I am satisfied that every impacted wisdom tooth, whether dead or alive, is an infected tooth.

The antrum is another source of infection that is misleading to a great many of us, and in many instances we frequently have a negative x-ray picture, perhaps a negative trans-illumination, and yet there are certain shadowy areas that suggest hyperplasia of certain parts of the mucous membrane. But if we culture these cases we will pretty nearly in every instance get a positive culture, showing there is a low grade of infection as the cause of these remote symptoms, or possibly a low grade temperature.

The ethmoid is another source of infection; for days and days of a period examination fails to elicit any evidence of infection, yet, by persistent and careful examination, we will find eventually a source of infection in this area.

The mastoids are also a source of infection. Dr. Marriot, who read his paper at the Southern Association, makes the statement that seventy-five per cent of all diarrheas of the child in the cool months of the year are due to infection in the mastoids. In my opinion, these infections are always secondary to a post-ethmoid infection—practically always.

One other class of cases I want to bring to your attention is pyorrhoea. I believe in every instance where we have a pyorrhoea we always have infected tonsils without question; and that removal of the tonsils is just as much necessary as the treatment of pyorrhea itself. I appreciated and enjoyed the excellent paper very much.

Dr. Ross E. Anderson (Jackson): Some months ago I had to do some work with some insane patients and I might give you some of my observations in regard to focal infections among those patients. For about three and one-half years I was a member of the medical staff of the State Insane Hospital here and last summer I did 150 tonsillectomies on these patients and quite a large per cent of these patients were benefitted and many of them appeared to be cured and left the institution. Tonsil pathology was about the only thing that I could find wrong with those whose tonsils I removed. In every case the tonsils were badly diseased. As I said, many of these patients recovered and went home and some of them in the short time of two weeks.

Doctor Cotton formerly claimed to cure nearly all of his patients by tonsillectomy. Since then he has found that resection of the colon in some of these cases is beneficial. I don't know anything about resection of the colon but in my opinion a large per cent of insanity is undoubtedly due to a focal infection in the tonsils.

Dr. E. H. Jones: Just a point of interest. Dr. I. C. Knox, of Vicksburg, has done (and is still doing) work which leads him to the conclusion that certain cases of gastric and duodenal ulcer are due to focal infection in the teeth and tonsils. He has made a preliminary report on this and will make a further detailed report at a later time.

Dr. L. S. Gaudet: I certainly appreciate the interest shown in the discussion of my paper. Doctor Montgomery brought out some very interesting points in relation to Doctor Cotton's work. I have followed some of it, too, and, of course, focal infection is a good deal like headaches, we could go on talking indefinitely, and still bring out some very new points. We are beginning to find out, as time goes on, that many new things are going to be brought out, which, of course, we are going to say are due to focal infection. A long time ago I started to follow Doctor Sluder in his work on ganglion headaches, and I read a paper a few years ago at Jackson, and I have been looking up different articles, and we find that type of trouble causes pains in all parts of the body; and so we will find focal infection enlarged and enlarged, and become broader, until in a course of time we will be able to eliminate focal infection and practically eliminate sixty or seventy-five per cent of the diseases that human beings are heir to.

SPINAL ANESTHESIA.*

P. GRAFFAGNINO, M. D.,

NEW ORLEANS.

Nearly twenty-six years ago Dr. Rudolph Matas, before this same Society, April, 1900, in his Chairman's Report, Section of Surgery, said: "I am convinced that all the dangers of general anesthesia with the classical anesthetics, chloroform and ether, whether alone or in combination with other agents, are not sufficiently appreciated and that the present indications for their use are far in excess of the actual demands of practice. I am also convinced that an unfounded and unjustifiable skepticism still prevails among many excellent, skillful and otherwise progressive surgeons, who, having neither the inclination nor the patience needed to acquire the latest, most advanced and efficient methods of local and regional anesthesia, or still confusing the imperfect and dangerous methods of the past with the safe and efficient methods of the present, still doubt and cling to general narcosis as the only means of abolishing pain in their operations." I feel that his remarks are as true today as they were then, and that the great progress made with spinal analgesia or anesthesia is not appreciated by most of the general surgeons of today.

In presenting this paper for your consideration, no attempt is made to add anything new in the way of anesthesia. That major surgical operations under spinal anesthesia have long ago ceased to be experimental procedures cannot be denied. Babcock, with an experience of 20,000 inductions, uses this method in ninety per cent of his serious operations below the diaphragm. Arthur A. Morrison of Alexandria, Egypt, in a report of 11,000 cases, used the method in more than 97 per cent of all his operations below the diaphragm. Jonnesco, Tuffier, Chaput, Desplas and a host of Continental and American surgeons are now using this method, if not routinely in all of their major operations below the diaphragm, are doing so in a large percentage of their cases. Jonnesco, the most enthusiastic advocate of spinal regional anesthesia, uses the method for all forms of operations on any part of the body.

Spinal anesthesia, having passed its experimental stages, is at this time entering the third stage in evolution through which all medical innovations must pass before reaching their true level of usefulness. The actual risk involved in its use cannot be determined at present because mortality statistics vary so widely that no reasonably accurate index can be obtained.

Jonnesco reports one death in his last 5,000 cases. Chaput knows of no deaths among 7,000 cases. Tuffier reported one death in eleven years. C. C. Wells, in a summary of 28, 746 cases, states that from 1908 to 1914 the mortality was one in 1,200 cases, and from 1915 to 1917 one in 16,000 cases. Babcock, in reviewing his last 15,000 cases, makes the following notation: "If used upon unselected patients and those who are bad surgical risks, without special safeguards, a mortality of one in 500 may be expected, but if used upon selected patients, with careful supervision, the mortality is probably less than one in 10,000." Chiene collected the reports of 12,000 cases—22 deaths—about one death in 570. Michelsson, discussing the various attempts to calculate the mortality of spinal anesthesia on the basis of statistical compilations, gives the following divergent results: Tomachenski, 1-7847; Strauss, 1-2524; Chiene, 1-570; Hohmeier, 1-200.

HISTORY.

Spinal anesthesia had its beginning in the experiments of Dr. James Leonard Corning, which were published in "New York Medical Journal," Oct. 31, 1885, but it was not until 1889 that Augustus Bier of Kiel, by an experiment on his own body and those of his assistants, introduced this

*Read before the Louisiana State Medical Society, Monroe, April 15-17, 1926.

method into surgical practice. Bier's method with cocaine was widely tried by many surgeons throughout the civilized world, but especially in France and America. Among the first, if not the first, to report a successful operation under spinal, performed at Charity Hospital of New Orleans, December 18, 1899, was a case of our own Prof. Rudolph Matas. Tait and Caglieri of Los Angeles used the method for osteomyelitis October 26, 1899, but did not report their cases until April, 1900.

Deaths were soon reported because of the uncertain and toxic effect of cocaine and the method lost favor everywhere. In 1904, with the introduction of the synthetic cocaine derivatives—stovaine by Fourneau, and, in the same year, novocaine by Einhorn—a new stimulus was given to spinal and the method became increasingly popular. Soon other synthetic preparations were introduced: alypin, tropacocaine, apothesine, etc. All have been used with greater or less success. Today, stovaine, novocaine, tropacocaine and apothesine are the drugs invariably used.

PHYSIOLOGICAL ACTION.

The physiology is that of a transient root interruption, chiefly affecting the posterior roots, with consequent analgesia and loss of tactile muscle and temperature sense. But the anterior roots with the associated white rami communicants are also blocked, causing transient motor paralysis and, especially important, transient vasomotor paralysis.

The posterior root block is essential, that the operation be painless; the anterior root interruption desirable, that the operation may be done with the ease and facility that complete muscular relaxation affords; but the interruption of the white rami, while it reduces bleeding and favors intestinal contraction and peristalsis, leads to a slowing and weakening of the heart action and a fall in blood pressure that may be hazardous. As the white rami through which the sympathetic impulses are conducted to the entire body are associated only with the anterior roots from the second dorsal to the third lumbar, it is evident that if the anesthesia involves the lower lumbar and sacral roots, there will be little or no effect on the blood pressure, but if the fibers supplying the great splanchnic vessels and those of the upper part of the body are affected, a great fall in blood pressure will result. As a rule, the fall in blood pressure is directly as the height of the motor paralysis, plus the strength, concentration and dose of the particular drug used. A blood pressure fall of 20 to 30 mm. is moderate, 30 to 50 mm. not unusual, and a fall in the systolic in the radials to zero is occasionally seen. This fall in pressure, which usually lasts but fifteen to thirty minutes, may be combated by introducing adrenalin intravenously (2-15 m. 1-1000 sol.).

DISADVANTAGES.

(a) Spinal anesthesia is a technical procedure demanding attention and skill greater than that required in ether anesthesia.

(b) It invites criticism from patient and colleagues, because it is not a method in universal use.

(c) It is a peg upon which the neurotic or hysterical may hang many post-operative symptoms.

(d) It may require precise antidotal and resuscitating measures, which should be, but are not always, instantly available.

(e) The anesthesia is of limited duration, three-fourths to one and a half hours, and if the operation is unduly prolonged, ether, nitrous oxide, ethylene, or local may be necessary to finish it.

(f) Certain persons are bad risks, notably those in severe shock or collapse from injury or hemorrhage; those with circulatory failure or toxemia, or other forms of sepsis or cardiac decompensation; those

with greatly limited respiratory function, as from pleural effusions or new growths.

(g) Very elderly and obese patients do not stand depression of the circulation and respiration as well as the young and thin.

(h) No absolutely safe drug for spinal anesthesia has yet been found. The more efficient the drug, the greater the danger.

That deaths have been reported in connection with each of the drugs in common use, whether justly attributable directly to the action of the drug, cannot be disputed. That other serious complications, as respiratory failure, degeneration of the cord, meningitis, intrathecal hemorrhages, ocular paralysis have occurred is not to be denied, but it must be remembered no other form of anesthesia is devoid of danger, especially if applied injudiciously.

It is probable when adequate data, based on the use of newer and less toxic drugs, is available, the mortality and morbidity will prove much lower than it now would seem to be.

Babcock, in a recent article summarizing his experience in more than 20,000 cases, says: "I feel confident that spinal anesthesia, properly given, is far safer than gas oxygen or ether; nevertheless, I consider ether safer in unskilled hands than spinal anesthesia. If spinal anesthesia is dangerous, it is because it is used carelessly and without recourse to the necessary protective measures; if it is ineffective, it is because the technic has not been perfected."

ADVANTAGES.

(a) Spinal anesthesia realizes perfect analgesia with complete muscular relaxation. It produces a negative abdominal pressure, a most precious condition for easy and efficient exploration of the entire abdominal cavity and manipulation of the diseased viscus. The bowels become flat and lose their tendency to crowd the operative field. The anemia resulting from the fall of blood pressure adds another valuable element to the existing abdominal silence, but in any case, hemostasis must be perfect.

(b) There is scarcely any post-operative nausea and vomiting, no gaseous distension, no real gastric disturbances, no motor restlessness, no lung and kidney complications, of so frequent occurrence following the use of general narcosis. There is consequently no strain on the abdominal wall, and therefore no local pain. The sutures are thus left undisturbed.

(c) Normal diet may be restored earlier; as a rule it is not interrupted if the nature of the operation permits. Convalescence is thus rendered shorter.

(d) Spinal anesthesia simplifies abdominal surgery by establishing the most favorable conditions for a clean operation and reducing to a minimum the operative and post-operative risks.

While the above describes the ideal result obtainable from spinal anesthesia, I am frank to confess that we have not obtained this result in all of our cases. The anesthesia has been perfect in about 80% of our cases, partially successful in 15%, and in about 5% a total failure.

The following table embraces all the spinal anesthetics recorded given at Charity Hospital, New Orleans, from 1899 through 1925; a total of 7,322:

1899— 1	1908—266	1917— 427
1900— 13	1909—298	1918— 316
1901— 44	1910—233	1919— 383
1902— 4	1911—220	1920— 411
1903— 12	1912—279	1921— 349
1904— 56	1913—239	1922— 399
*1905— 54	1914—232	1923— 374
1906—265	1915—286	1924— 440
1907—258	1916—344	1925—1119

*The 54 spinal anesthetics credited to 1905 cover only the months of January to May, inclusive—no record of anesthetics given in the interval to January, 1906, could be obtained.

Just within the past eighteen months has spinal anesthesia been employed to any great extent for general abdominal surgery.

An analysis of 699 major surgical operations, performed by myself and other surgeons in this institution, forms the basis of this report, which contains only those operations performed by the general surgeon and gynecologist:

ANALYSIS OF 699 CASES FROM JANUARY 1, 1924, TO JANUARY 1, 1926, FOR GENERAL ABDOMINAL AND PELVIC OPERATIONS.

DIAGNOSIS APPENDICITIS	Number of Cases	Emergency Operations	Appendectomy with Drainage	Incision and Drainage	Completed or Aided with Local	Complete or Aided with Ether or Some Other General Anesthetic	Cured	Died	REMARKS
Acute Suppurative:	79	72	53	15	9	2	59	20	These 79 cases represent all forms and stages of the disease—suppurative, gangrenous, ruptured, with localized or generalized peritonitis. Of the 20 deaths (all emergency operations) none could be attributed to the anesthetic used.
1—Rt. Inguinal Hernia									
Acute:	59	42	1	—	11	1	58	*1	*Desperately ill when admitted. Positive Widal — Ulcerative Enteritis.
1—Rt. Salpingo-oophoritis									
Subacute.	61	—	—	—	5	2	61	—	
1—Phimosis 1—Intralig. Fibroid 1—Chronic Cholecystitis									
Chronic:	150	—	—	—	18	3	147	*3	*Rupture of the operative wound in one case, later intestinal obstruction, patient dying the 21st day after operation. One developed bronchopneumonia—in addition hemorrhage from bowels. Third case died of gen. peritonitis. Post-mortem showed gangrene and sloughing of appendiceal stump.
10—Retroversion of Uterus 2—Retroversion & Rt. Cystic Ovary 2—Retroversion & Bil. Salpingitis & Rt. Oophoritis 1—Retroversion with Varicosities of Rd. Lig. 1—Retroversion with Stenosis of Cervix 2—Anteversion Chr. Appendicitis—Cont'd. 3—Chr. Cystic Oophoritis (Unilateral) 1—Rt. Salpingo-oophoritis 1—Chr. Endometritis & Bil. Salpingo-oophoritis. 2—Phimosis 1—Rt. Inguinal Hernia 1—Post-operative Fistula (Old) 1—Adhesions to Gall-Bladder									
TOTAL	349	114	54	15	43	8	325	24	

I believe that spinal anesthesia has a special field in cases of purulent appendices associated with local or general peritonitis. The perfect anesthesia with absolute relaxation of the abdominal muscles, the powerful action in causing an emptying of the lower bowel, gives spinal anesthesia an advantage over any known method of anesthesia.

DIAGNOSIS	Number of Cases	Completed or Aided with Local	Completed or Aided with Ether or Some Other General Anesthetic	Cured	Died	REMARKS
GYNECOLOGICAL						
Plastic:	45	1	—	44	*1	*Extensive tear—died on the thirteenth day—general peritonitis.
This includes amputations of cervix, trachelorrhapies, cauterizations, colpotomies, excision of vulvo-vaginal glands, repair of vesico or rectal fistulae, anterior and posterior colporrhaphies.						
18—Salpingitis, Oophoritis, Salpingo-oophoritis (unilateral and bilateral) with Uterine Displacement and Appendicitis 14—Without Displacement 1—Without Appendicitis 4—Without Displacement or Appendicitis....	37	6	5	37	—	18—Salpingectomies, Oophorectomies, Salpingo-oophorectomies (unilateral and bilateral) with Suspension and Appendectomy 14—Without Suspensions 1—Without Appendectomy 4—Without Suspension or Appendectomy
1—Displacement of Uterus 8—Displacement with Appendicitis 6—Displacement with Cervical Lacerations, Perineal Lacerations, Cystocele, Rectocele, etc.—4 of the 6 cases had Chr. Appendicitis.	15	3	2	15	—	1—Suspension 8—Suspensions with Appendectomy 4—Suspensions with Appendectomy and Plastic 2—Suspensions with Plastic.
36—Multiple Uterine Fibroids 9—Complete Prolapse 2—Chronic Endometritis and Metritis Of the above: 10—Bilateral Salpingo-oophoritis and Appendicitis 2—Bilateral Salpingo-oophoritis 6—Unilateral Salpingo-oophoritis 1—Unilateral Salpingo-oophoritis and Appendicitis 1—Bil. Salpingo-oophoritis, Appendicitis and and Hernia 7—Bilateral Salpingitis and Appendicitis 1—Unilateral Salpingitis 1—Complete Tear 1—Unilateral Oophoritis and Appendicitis 5—Bilateral Salpingitis, Rt. Oophoritis and Appendicitis	47	5	4	44	*3	36—Supravaginal Hysterectomies 9—Vaginal Hysterectomies with Plastic 2—Complete Hysterectomies In addition to the above hysterectomies, attention was given to all of the complications listed in opposite column, the operation in conformity with the pathology listed. *One case died of acute nephritis on the tenth day; the second case of general peritonitis on the seventh day, and the third case of Embolism on the seventh day.
MULTIPLE UTERINE MYOMATA: 1—Appendicitis 1—Bilateral Salpingo-oophoritis — Appendicitis and Hernia 1—Bilateral Salpingitis; Prolapse with Retroversion; Appendicitis; Umbilical Hernia	3	—	—	3	—	1—Myomectomy and Appendectomy 1—Myomectomy, Appendectomy, Bilateral Salpingo-oophorectomy and Hernioplasty 1—Myomectomy, Bilateral Salpingectomy, Appendectomy, Suspension, Hernioplasty

DIAGNOSIS	Number of Cases	Completed or Aided with Local	Completed or Aided with Ether or Some Other General Anesthetic	Cured	Died	REMARKS
OVARIAN CYST:						
3—Appendicitis	5	—	—	5	—	1—Excision of Cyst 1—Excision of Cyst and Appendectomy 1—Rt. Oophorectomy 1—Exc. of Cyst and Rt. Salpingectomy 1—Rt. Salpingo-oophorectomy and Appendectomy
ECTOPIC PREGNANCY:						
1—Acute Appendicitis 1—Salpingitis and Appendicitis 1—Ovarian Abscess and Appendicitis 1—Chronic Appendicitis 1—Bil. Salpingitis, Lt. Cystic Oophoritis—Appendicitis	6	—	—	5	*1	1—Rt. Salpingo-oophorectomy 2—Salpingectomies and Appendectomies Oophorectomy and Appendectomy. 1—Bilateral Salpingectomy, Left Oophorectomy, Appendectomy. *Acute Nephritis the cause of death.
MISCELLANEOUS:						
1—Appendicitis and Chronic Cervicitis 1—Eroded Cervix, P. O. Adhesions, Lt. Salpingo-oophoritis, Prolapse of Rt. Ovary 1—Retroperitoneal Sarcoma 1—Papilloadenocystoma 1—Uterine Fibroid and Bilateral Salpingitis 1—Suspected Malignancy 1—Dense Pelvic Adhesions 1—Chr. Appendicitis with Adhesions	9	—	—	9	—	1—Appendectomy and Cauterization 1—Liberation of Adhesions, Lt. Salpingo-oophorectomy, Rt. Oothecopexy, Hunner's Cauterization of Cervix 1—Incision — no operation on account of profuse bleeding. 4—Exploratory Laparotomies 1—Excision of Rt. Ovary 1—Appendectomy, Liberation of Adhesions

DIAGNOSIS	Number of Cases	Emergency Operations	Completed or Aided with Local	Completed or Aided with Ether or Some Other General Anesthetic	Cured	Died	REMARKS
INTESTINAL OBSTRUCTION							
1—Malignancy of Rectum and Ovary 3—Volvulus 1—Appendiceal Abscess (Localized) 1—Intussusception and Subacute Appendicitis 1—Strangulated Rt. Femoral Hernia (one foot of gangrenous bowel exsected) 3—Paralytic Ileus 7—Due to Adhesions only	17	10	3	3	7	*10	*One case of shock before operation; died within 24 hours. One, 24 hours after operation—peritonitis. One, shock on table during operation—died within 24 hours. One, shock before operation—12 hours. One died within 12 hours—paralytic ileus—shock before operation—enterostomy. One died on the seventh day—bronchopneumonia. One, malignancy of rectum and ovary — peritonitis, shock before operation—died on the 3rd day.

No matter what form of anesthesia is employed, the mortality will always be high in these cases because, due to toxemia, many are beyond hope by the time they reach the surgeon. Spinal should not be used in any case that entails desperate risk. Patients that are shocked, nearly pulseless, septic, cyanotic, collapsed, distended and dyspnoic should never have spinal.

DIAGNOSIS	Number of Cases	Emergency Operations	Completed or Aided with Local	Completed or Aided with Ether or Some Other General Anesthetic	Cured	Died	REMARKS
GUNSHOT & STAB WOUNDS OF ABDOMEN							
18—Gunshot Wounds 6—Stab Wounds	24	24	6	3	9	15	A large percentage of these cases died within 24 hours after operation. Most authorities agree that spinal is contraindicated after injuries (gunshot wounds, stab wounds, etc.) or any condition associated with shock and loss of blood.
GALL-BLADDER DISEASE							
2—Chronic Cholecystitis 4—Chronic Cholecystitis with Lithiasis 3—Chronic Cholecystitis with Appendicitis 1—Subacute Cholecystitis with Appendicitis 1—Acute Cholecystitis with Lithiasis 1—Chronic Cholecystitis with Lithiasis and Appendicitis 1—Empyema of Gall-Bladder with Cholelithiasis 1—Empyema of Gall Bladder with Lithiasis and Appendicitis	14	*1	3	—	14	—	*Emergency operation because of a pre-operative diagnosis of Acute Appendicitis. In six of the cases cholecystectomy was performed—eight cholecystostomies.
PEPTIC ULCER							
2—Gastric, Ruptured 2—Gastric with Appendicitis 1—Duodenal with Appendicitis	5	2	3	—	4	1	
NEPHROPATHY							
1—*Acute Nephritis with Anuria follow Mercurial Poisoning 2—Nephrolithiasis 1—*Bilateral Pyonephrosis with Renal Calculus (Rt.) 1—Tubercular Nephritis, Right	5	—	—	—	3	*2	1—Bilateral Decapsulation 2—Nephrolithotomy 1—Nephrectomy, Right 1—Nephrectomy, Right; Drainage
MISCELLANEOUS							
1—*Ruptured Ulcer of Jejunum 1—Meckel's Diverticulum with Appendicitis 1—*General Carcinomatosis, with Pelvic Adhesions involving Intestines, causing Obstruction 1—Vesical Calculus 1—Cirrhosis of the Liver 1—Carcinoma of Liver 1—Rupture of Operative Wound 2—P. O. Hemorrhages 1—*General Peritonitis — Cause Undetermined 2—Post-operative Adhesions 1—*General Peritonitis with Extensive (general) Abdominal and Pelvic Adhesions 1—*Tubercular Peritonitis	14	4	—	—	9	*5	1—Jejunectomy (about 6" of Jejunum Resected) End to End Anastomosis 1—Excision of Meckel's Diverticulum and Appendectomy 1—Enterostomy 1—Suprapubic Cystotomy for Removal of Vesical Calculus 6—Exploratory Laparotomies — two with drainage 1—Insertion of Bag in Suprapubic Wound to Check Hemorrhage 1—Packing to Control Hemorrhage 1—Secondary Closure of Operative Wound 1—Liberation of Adhesions

DIAGNOSIS	Number of Cases	Emergency Operations	Cases Completed or Aided with Local	Cases Completed or Aided with Ether or Some Other General Anesthetic	Cured	Died	REMARKS
MISCELLANEOUS.							
HERNIA							
Inguinal: (Unilateral, Bilateral, Direct and Indirect 1—Femoral Hernia 1—Hydrocele 2—Varicocele 2—Undescended Testicle 13—Appendicitis 1—Undescended Testicle and Appendicitis 1—Epididymitis and Hydrocele	69	—	11	—	66	*3	*One of these deaths occurred on the third day—Acute Nephritis; one the fifth day—Chronic Nephritis and Myocarditis; the third on the nineteenth day—Embolism—Wound Infection with Sloughing.
Incarcerated Inguinal Hernia	1	1	—	—	1	—	
Strangulated Inguinal Hernia	14	14	6	—	12	*2	*One death shortly after operation—cause given as Strangulated Inguinal Hernia. Second case: sudden death on seventh day. Post mortem: "Pulmonary Embolism."
Umbilical Hernia	2	—	—	—	2	—	*Three deaths, all within 48 hours, all massive resections of fat, omentum, etc., in one case exsecting 14½ feet of gangrenous bowel. One lobar pneumonia. **Died on operating table—Myocarditis.
1—Bilateral Cystic Oophoritis and Appendicitis							
*Strangulated Umbilical Hernia	4	4	1	—	1	*3	
**Incarcerated Umbilical Hernia	1	1	—	—	—	**	
1—Femoral Hernia	1	—	1	—	1	—	
1—Incarcerated Femoral Hernia	1	1	—	—	1	—	
1—Strangulated Femoral Hernia	1	1	1	—	1	—	
10—Post-operative Ventral Hernia	10	—	3	—	10	—	
TOTAL	104	22	23	—	95	9	

As will be noted, not a single death on careful analysis could be attributed to the anesthetic, *per se*.

METHOD OF APPLICATION.

In the above cases novocaine and apothesine have been used exclusively, doses ranging from 1¼ grs. to 2½ grs.

I am not going to bother you with details of the technic of spinal injection, as method is described in all standard text books; but it must be remembered that asepsis must be maintained at all costs. A small needle, the size 20 to 21 gauge, short bevelled point with a well-fitting stylet will produce less trauma, and no injection should be given unless clear spinal fluid escapes freely from the needle. The injection is given between the eleventh and twelfth dorsal for upper abdominal work; first and second lumbar interspace for lower abdominal and operation on leg; operations on rectum and perineum, third and fourth lumbar. Height of the anesthesia will vary according to the specific gravity of the solution used, the force of the injection, the amount of fluid withdrawn and the decompression of the dura.

CONCLUSION.

It is my belief that many of the objections advanced in regards to the toxicity, large per cent of failures, post-operative sequelae, etc., are in a large measure unfounded, and while this method is not without its dangers, it has a large and important field of usefulness and the time is fast approaching when it will be sanctioned by the entire profession and employed by able surgeons in appropriate cases.

DISCUSSION.

Dr. J. A. Danna (New Orleans): I don't know of any paper on the program in which I am more interested than in this. In the days of chloroform I did a great many spinal anesthesias but they were all low spinal anesthesias, they were all in external urethrotomy, rectal work, hernia work and work below the waistline; in other words, work which could be reached by the lumbar puncture.

I have been very much interested in the last two or three years in the work of the members of the house staff at Charity Hospital who have been doing all kinds of abdominal work with high spinal anesthesia. I am sorry Dr. Graffagnino didn't have time to go into that. In high spinal anesthesia, I think it is between the first and second lumbar or eleventh and twelfth dorsal. I have seen some very remarkable results: You get absolutely complete relaxation, your patient sleeps throughout the whole procedure and never complains. I have seen them pack all kinds of sponges in the belly, doing the most difficult gall bladder operations, without any difficulty whatever.

However, I am reminded of the fact that we have had waves of enthusiasm for spinal anesthesia from time to time and I am just hoping that this time the wave is going to last, especially if we look into the subject with the serious intent that Dr. Graffagnino has and analyze the difficulties and the dangers as well as the advantages. His mention of Jonnesco especially reminds me that Jonnesco went all over the United States and he did punctures way up in the cervical and high dorsal region; but the number of fatalities in the cases done by Jonnesco himself in America at the time were such that nobody took the matter up.

Dr. Graffagnino mentioned a certain number of deaths. I would like to have him, if possible, tell us how many of those were anesthesia deaths and how many due to the condition for which the patient was operated on, because they were all serious conditions if I remember correctly.

I find that men who do spinal anesthesia and don't keep the head raised always talk about the shock that you get from spinal anesthesia, that those who do keep the head raised don't do that.

I can remember a year or two ago there was a good deal of spinal anesthesia being done at a certain large clinic and especially in their prostate work. They put them in the Trendelenburg position and all you heard them talk about was what to do when the patient gets shocked and goes all to pieces, and someone was at the head of the table to give a particular hypodermic that you had to give for all these cases. Now at the Charity Hospital where they are not put in the Trendelenburg position they don't have these conditions of shock.

I am very much interested in this subject and if these boys can convince me that that procedure is as safe as low spinal anesthesia, of which I have done a great deal, I am going to adopt it myself; but I haven't got the information yet that will make me do it.

Dr. Emmett Irwin (New Orleans): There is no question, spinal anesthesia has a place in major surgery. The essayist has gone into the subject very fully and I can agree with him in every point brought out in his paper. Spinal anesthesia is a dangerous procedure and will carry its percent of mortality. There have been recently in New Orleans two deaths attributable directly to spinal anesthesia, both of whom died by respiratory failure within a very few minutes after the introduction of the anesthetic solution into the spinal canal. There have been one or two cases with bad post-operative results attributable to the solution. One is a boy of seventeen years of age who has an incontinence of *urine* and feces. In this case all laboratory tests have been negative.

There was another case of spinal syphilis who developed typical symptoms of a meningitis following spinal anesthesia; however, this one completely cleared up under antiluetic treatment.

The great disadvantage in spinal anesthesia is its unreliability. One cannot pick out the case in which it is certain anesthesia will be complete. It is impossible to tell how long the anesthesia is going to last. I have had the anesthesia last anywhere from seven minutes to three hours and a half, and I mean in the former case anesthesia was complete in the beginning and at the end of seven minutes from the induction of the anesthesia the patient experienced pain in the toes upon pinching the skin.

With reference to the level at which it is best to give your spinal injection, one can get an ascending anesthesia from a low puncture. We

had previously thought we did not get anesthesia above the level at which our fluid was injected, but I have had anesthesia including the innervation of the sixth cervical, from an injection of anesthetic solution into the second lumbar space. It is possible to do upper abdominal surgery by an injection into the second lumbar, and now I never go above the first lumbar. One can get splendid anesthesia for upper abdominal work by making the injection in the first lumbar space.

I have formerly done high spinals and had some very bad frights by injecting into the upper dorsal. Fortunately, no fatalities at all. Personally, I have not had any fatalities due to spinal anesthesia. The results have been very good but at the same time I have been always very cautious and have a great deal of respect for the procedure. I limit my working practice to all work below the belt. For everything between the belt to the diaphragm I prefer the splanchnic analgesia. It is more prolonged and with the splanchnic one will get anesthesia from two to four hours.

The chief dangers of spinal anesthesia Dr. Graffagnino has gone into very thoroughly. Let us remember the following types of cases as contra-indications, the cardiacs, the nephritis, spinal syphilis, the aged and asthenic, marked hypotension, those patients suffering from shock and hemorrhage, and diabetic gangrene. Local anesthesia should be used in these instead of the spinal.

I wish to congratulate Dr. Graffagnino on his splendid presentation of the subject.

Dr. Abraham Mattes (New Orleans): Since the introduction of spinal anesthesia in surgery in New Orleans by Dr. Rudolph Matas, the genito-urinary service has been the most consistent user of spinal analgesia in the United States. Spinal analgesia has been used continually, not intermittently, but continually in that particular service. Of late years, due to the wave of enthusiasm caused by the reports from other centers, surgeons have in increasing numbers used spinal in a number of cases and its use has increased to quite an extent.

There is a definite field of usefulness for spinal analgesia in surgery. It must be emphasized that the injection and the method is a highly technical one and unless the surgeon is courageous and can combat shock or any complication that may arise within the few moments following the injection, he should not use that method. You must be properly prepared and always prepared for any emergency that may arise. If you are not prepared or not courageous, leave the method alone.

The type of patient. It is particularly unfortunate for any one to attempt to give spinal to an individual with a low blood pressure. They are all bad risks. They do very badly. A pressure below 120 is a bad risk.

With regard to the height of the analgesia. In a certain percentage of cases the height of the analgesia bears no relationship to the height of the injection. You may give a low spinal and get a high effect. Again, you may give a high spinal and get a low effect. In a small percentage of cases, running from five to ten, as Dr. Graffagnino has stated, the effect is poor, incomplete or nil. In these cases, it is the opinion of those working in the service of which I am a member, the drug used has become detoxicated by either the fluid or the spinal nerves or the spinal column itself. The drug is detoxicated and has no effect. We know it is in the canal.

Within the last six months there has been a number of unfortunate complications following in the wake of spinal anesthesia in the surgical service at Charity Hospital. We have never had a condition of affairs of such a nature in the past. That condition does not exist in our own service—by that I mean the genito-urinary service. Dr. Elder, who was to have discussed the paper, has on record six cases of myolitis, paralysis of the lower extremities following spinal anesthesia. They are all recovering. One, operated six months ago, is slowly recovering as a result of the spinal. In addition to that there has been four deaths as a result of paralysis of the bladder with complete urosepsis and death attributable entirely to spinal anesthesia. In addition to that, there have been a few bad bladders of the type that I have never yet seen that have recovered after two, three or four months of persistent treatment and a rather stormy convalescence. It has been my opinion, due to these bad results, that the operation on any area in the abdomen at or above the spinal center of urination and defection will in a certain percentage of cases bring about an inhibition of these centers and result in a paresis which takes quite a time to return to the normal. And that is a word of warning. I don't know whether it is the trauma of operation or the manipulation that causes it.

Another thing in the present opinion of the house staff of Charity Hospital, that fulminating acute infections should not be handled with spinal. There is too great a relaxation of the abdominal viscera, with inhibition that lasts from a few hours to a few days. Instead of localizing an infection, it has a great tendency to spread.

Dr. E. M. Ellis (Crowley): I am very much interested in this work as I have done quite a little of it myself. I have been listening with some degree of interest to the few bad results

they are getting and I just wonder in case of bad results in your private practice if you would be liable to a damage suit.

Dr. E. K. Hirsch: I have had no experience with high spinal anesthesia but I would like to take exception to the remark that it is not advisable to use it in the aged. I think in urological practice where prostatic work is done altogether in the aged spinal anesthesia finds one of its greatest fields of usefulness, and in that particular respect we find also the same condition about statistics. We might have ill results from the spinal anesthesia in the aged. We have also many bad results from the general anesthetic indirectly in these prostatic cases. The recovery is much quicker in the spinal anesthesia. They are able to get out of bed very much earlier, and in these old, prostatic cases, I think protracted stay in bed is one of the greatest factors in high mortality.

Dr. Frank J. Chalaron (New Orleans): I agree with Dr. Hirsch and disagree with those who say that spinal anesthesia, especially the low form of anesthesia, is contra-indicated in the aged. I have selected that method in prostatectomies in very old men. I had occasion to do two prostatectomies in men who were over eighty years of age, and I selected the spinal anesthesia for the reason that both of them were suffering from a chronic bronchitis and that I feared the effect of a general anesthetic, and obtained the most beautiful result in both cases.

Answering what Dr. Mattes has spoken of, the cases of paralyses, I don't think that those cases are due to the anesthetic because the same conditions have occurred in using the Swift and Ellis method. I am frank to say, as I have stated once before in the discussion of the treatment of neurosyphilis, that the disastrous results I have obtained, such as almost complete paralysis of the bladder, have made me reserve the Swift and Ellis for special cases. I think the paralysis is due to trauma. I may be wrong. Somebody may go further and clear the point but that paralyses do occur in spinal injections irrespective of the anesthetic used is a fact.

Dr. Graffagnino (closing): First, let me thank you for your kind discussion.

I have endeavored to analyze all the deaths at the hospital; this includes the latter part of 1924 through 1925, nearly 700 cases; there was not a single death on careful analysis that could be attributed to the drug. That deaths have occurred I do not question. That deaths are going to occur there is no doubt, but as Babcock has said, if you don't select your cases, expect a high death rate.

In regard to the technic, we make our injection between the eleventh and twelfth dorsal for abdominal operations, second and first lumbar for all operations that are limited to the perineum, the cervix or the bladder.

We use the finest needle that we possibly can introduce into the canal without any trauma, and we have found that a needle of a twenty-two to twenty-one gauge nickeloid is the proper one. Never inject a solution into the canal unless you get a free flow of spinal fluid. The extent of anesthesia will be in proportion to the amount of fluid that is withdrawn, the dosage of the medicine that you introduce and the force with which you give the injection. In other words, if you forcibly inject a certain amount of fluid you are going to have a more rapid diffusion with a high anesthesia.

Another important thing is, as soon as you make the injection allow the patient to remain in a recumbent position for five or six minutes, after that you can safely put them in the Tredelenburg position without any serious fall of blood pressure.

The amount of drug used: In the beginning we used from one and one-quarter grain to one and one-half grain and found that that was not sufficient to produce the required anesthesia for the length of time that the average gynecological operation requires. We have gradually increased the dose until today we are using routinely two grains of novocain or apothesine.

I am glad that Dr. Mattes brought out the serious complications that he has encountered because it is another warning that the method is not without its dangers. I think everybody who has had bad results should bring them out because we can do a whole lot of harm with any new method if the dangers are not realized before you undertake to use it.

Answering Dr. Ellis; in regard to the possibility of a lawsuit, I don't see why a new method that has been used in more than 200,000 cases, that is approved by the master surgical minds throughout the civilized world, should be more liable to lawsuit than any other form of anesthesia, when the proper supervision and precautions have been taken.

DIABETES AND TUBERCULOSIS.*

HENRY BOSWELL, M. D.,
Superintendent State Sanatorium,
SANITORIUM, MISS.

There has been a feeling on the part of the medical profession for many years that diabetes was a favorable forerunner of tuberculosis. As early as 1859 Griesinger reported 250 cases of diabetes with 42% showing tuberculosis, and Windle found 50% of 327 cases to have died with tuberculosis.

In more recent years investigations by others have led to a refutation of the figures of Griesinger and Windle as applicable to the general diabetic population. Charles Montgomery shows that there is no conclusive proof that tuberculosis is more common in diabetics than in the other population of like age periods. His findings were based on 355 autopsies collected from literature and 25 cases of his own since 1882, and 38.9% showed tuberculosis, most of which was the acute form. This, however, is not excessively high as compared with the prevalence of tuberculosis in the general population.

It is rarely, if ever found, that diabetes develops during the course of pulmonary tuberculosis, but on the other hand diabetes is the primary disease and tuberculosis the complication, often running a rapid course. This can be easily understood when the fact is taken into consideration that diabetes is a wasting disease and that the resistance of the individual is at a low ebb.

In our own experience of several thousand cases of tuberculosis we have never seen a case of glycosuria develop in one of our patients, but have had a total of three cases in the institution out of about two thousand who had tuberculosis complicating diabetes. This would indicate that tuberculosis is no more common in diabetics than the other population, that is, granting that these two thousand cases represent a cross section of our citizenship.

*Read before Mississippi State Medical Association, Biloxi, May 11-13, 1926.

TREATMENT.

The treatment of tuberculosis complicating diabetes is fairly favorable, when the treatment is directed to the primary disease rather than the complication. The dietary treatment should always be for diabetes rather than tuberculosis.

In our own cases, as soon as the carbohydrate tolerance could be established and the diet directed accordingly, two of the cases began a steady improvement and continued to an arrest of the tuberculous process. One was discharged from the institution four years ago and has been working steadily since in apparent good health. Number two, a lawyer, discharged three years ago, is following his professional work under our supervision as to hours of work, diet, etc., with no apparent ill effects and is to all appearances a healthy man. Number three developed insanity; was transferred to another institution where with the steady progress of the three diseases he soon succumbed.

The two first cases were treated by dieting alone. Number three was given insulin, in addition to the rigid diet and seemed to improve until the insanity developed, which made it impossible to treat the other two diseases.

The writer believes that insulin will make the road to success in the treatment of these diseases together much easier and will save the lives of many more provided that it is always remembered that all treatment should be directed from a dietary standpoint to the diabetic state, and that complete rest in fresh air will take care of the tuberculosis process.

CONCLUSIONS.

1. When diabetes and tuberculosis exist together, tuberculosis is invariably the complication.

2. Diabetes does not occur any more often in the tuberculous than in the other population of same age group.

3. The chance for recovery is favorable as long as diabetes is treated first.

DISCUSSION.

Dr. W. W. Crawford (Hattiesburg): This has been certainly a very instructive symposium on a very important subject. It seems to me that diabetes is of ever-increasing importance. I know that personally I have seen more cases during the past four or five years than probably during any decade of my professional experience.

I was scheduled to open the discussion of the surgical paper, but Dr. Barksdale has so thoroughly covered every phase of diabetes that anything I might add would only prolong the discussion and be out of place. I am conscious of the fact that as surgeons we are approaching the surgical phase of diabetes with very much more satisfaction today than ever before because of the fact that we have learned to recognize that if you can get your diabetic—in case it is not an emergency like an acute appendix—if you can prepare your patient and get him sugar free—which can be done in 24 hours, or in two or three days at the most—then follow a conservative plan, not using alkalies exclusively but rather resorting to insulin—if you do this almost any sort of surgical procedure is practical. It is the custom in the clinics where so much of this work is being done, to administer insulin from the very beginning, and giving, as Dr. Barksdale has suggested, a carbohydrate-free diet at an early period. Insulin can be given in 10 to 20 minim doses immediately following, or in fact preceding the operation, provided you use it with glucose solution.

A very interesting thing has been brought out with reference to relief of diabetes by operation on the gall bladder. An article in the Journal of the American Medical Association reported a series of cases that were relieved of coincident conditions, and that relief was from surgery.

I would like to call your attention to radium in diabetes. Someone has recently called attention to the fact that the administration of radium in diabetes sometimes causes a disappearance of the diabetic symptoms. I want to say from recent personal experience that the administration of radium sometimes aggravates the condition, as in a patient of mine. I was dieting the patient; she required radium—she had been under treatment for an entire week and seemed to be in good shape, when two or three days after the administration of radium, intrauterine, despite the fact that we gave insulin, her blood sugar and the sugar in the urine ran up very rapidly.

THE TOXEMIA OF SCARLET FEVER.*

WITH SPECIAL REFERENCE TO THE EXPERIMENTALLY INDUCED NEPHRITIS.

CHARLES W. DUVAL, M. D.,

NEW ORLEANS.

More than thirty years ago a noted Italian investigator claimed an etiological role for the streptococcus in scarlet fever, and in the early part of this century Class of Chicago made a similar claim. However, neither of these authors, nor those who later attempted the confirmation of this earlier work, with the exception of Dicks, could offer convincing proof of a streptococcal relationship to the disease. It has, of course, always been traditionally held that the streptococcus played a secondary role in scarlet fever, but until quite recently no one regarded it as the primary and sole exciting cause. It remained for the Dicks to establish the real significance of the streptococcus in scarlatina.

Since the achievement of the Chicago investigators, which must be regarded as one of the greatest in American medicine, much has been accomplished to advance our knowledge of scarlet fever, especially as regards the prevention and cure of the disease. While a great deal is known of this interesting exanthematous infection which prior to the establishment of its cause was obscure, there still remains a number of features that are imperfectly understood. Problems are now before us whose solution will so improve our methods of diagnosis and treatment as to place this malady on the same basis, in these respects, with diphtheria.

Perhaps the two most important factors in scarlet fever infection that we stand in need of enlightenment upon are the toxemia and nephritis particularly the acute changes in the kidneys and their relation to chronic interstitial nephritis—otherwise known as Bright's disease. A clearer conception of

*Read before the Orleans Parish Medical Society, October 11, 1926.

the nature of the toxin and its effects upon the tissues is at this moment highly desirable if for no other reason than the production of a more potent antitoxin than the one now in use. In this connection I need only remind you that the scarlatinal antitoxin employed at the present time is not as efficacious as we would like it to be. Again we are to be reminded that scarlet fever develops in quite a percentage of humans that are negative to the "Dick test." The answer here will be clear when we know more of the real nature of the scarlatinal poison. Still another problem that faces us is the fact that young children immunize more readily with scarlatinal toxin than older children and adults, though the latter have never had scarlet fever. The solution here involves the question of streptococcal specificity in the causation of the disease, and the possible close biological relationship of all pathogenic streptococci for man. This raises still another question, namely that more than one variety of streptococcus may cause the clinical entity known as scarlet fever. It is possible, though improbable, that the streptococcus of erysipelas, acute inflammatory rheumatism, puerperal sepsis, and scarlatina are interchangeable in respect to the production of these various disease processes. We already possess the knowledge that more than one variety of the streptococcus species induces scarlet fever. The similarity in the pathology caused by various pathogenic streptococci is worthy of note in this connection, so also the fact that all streptococci are capable of causing a general as well as a local infection. Furthermore it is known that the active toxic principle of a number of these micro-organisms is an intracellular product, and indistinguishable by serological means of differentiation. These and other questions dealing with scarlet fever will be elucidated in the near future if the investigative spirit now in progress by students of the subject is any criterion.

The toxemia of scarlatina has been recognized for years by the physician as a factor of paramount importance. In a general way it is held responsible for the multiplex pathology of the disease. However, its nature and origin has not been possible of understanding prior to the final and definite establishment of the causal excitant. Even today with the etiology of scarlet fever definitely known there is much that is not understood concerning the toxemia. For example, there are those who, recognizing the streptococcus as the cause, regard the toxemia as due to a soluble poison analagous in its nature and action to the toxin of diphtheria. The basis for this belief seems to lie in the fact that "blanching" of the "rash" occurs as a result of the cutaneous introduction of specific immune serum, and that antitoxin is a cure for the infection. Experimental work carried out in collaboration with my colleague, Dr. Hibbard, affords considerable evidence in support of the view that the essential toxemia in scarlet fever is caused by an endotoxic product of the streptococcus, and that there is no soluble poison extant at any time. It would seem that scarlet fever is commonly a localized infection which gives rise to two forms of toxemia, the one following in natural sequence upon the other. Both are endotoxic in character though differing in their manner of production, their action upon the tissues and their specific interaction with antitoxin.

In order to understand our explanation of the scarlatinal toxemia it is perhaps better to consider five stages of the disease. The primary toxemia occurs during the early stage and is due to the whole antigen of the infecting organism. The toxic action which it exerts upon the tissues of the host occasions the production of a specific lysin. This lysin in turn exerts a cleavage action upon the streptococcus, and in consequence there is liberated an endotoxic product. During this stage of the infection the patient becomes more toxic as a result of the action of the lysin-split endotoxin, thus there is established a second and new form of toxemia. The new toxic effects are most marked during the

second theoretical stage of the infection, and is responsible, we believe, for the "rash", nephritis, myocarditis, etc. There is no counteracting host-neutralizing substance present at the time of the early discharge of endotoxic product, which explains why this stage of the disease is the one of severest toxemia. In the course of this toxemic stage antiendotoxin is produced by the host, which in time establishes the real immunity to the disease. If we accept the endotoxic principle of the scarlatinal streptococcus as the agent responsible for both toxemias we can more readily understand the pathology of scarlet fever, particularly the late nephritis of the afebrile stage.

With regard to the experimental scarlatinal nephritis the significant lesion occurs in rabbits reacting to the intravenous injection of filtered streptococcal endotoxin. The kidney lesions are induced primarily in the glomeruli and completely correspond to those seen in human scarlet fever nephritis. Here it should be mentioned that the animal used is not susceptible of infection with the living streptococcus cultures. Furthermore we were unable to cause any toxic effects in the experimental animal with large doses of culture-filtrate (Dick's toxin).

The gross appearances of the affected rabbit kidneys varied from a slight cloudy condition to one in which the organs are much enlarged and often studded with minute hemorrhages. The petechiae in the cortex of the kidneys corresponds to the location of the glomeruli.

Microscopically the kidneys show an intense acute non-suppurative glomerulo-nephritis as the outstanding lesion. The glomerular changes range from a simple hyperaemia of the tuft capillaries to a marked congestion, serum extravasation and hemorrhage into the capsular spaces. In some instances the tuft is pushed to one side or partly crowded out of Bowman's capsule. Hyalin thrombi of the tuft vessel is also a frequently noted lesion. For some glomeruli the capillary whorl is partly or completely destroyed. In others, there occurs the epithelial proliferation which is characterized by the formation of the so-called "crescents".

Tubular changes while not an early feature of the experimentally induced nephritis are often in evidence where the corresponding glomeruli are markedly altered or destroyed. In these instances the epithelium is swollen, granular, and desquamated, much of which is loose in the lumen of the tubules as casts.

In conclusion it may be said that the results from our studies show that the active principle of scarlatinal streptococci is endotoxic in kind, and responsible for the toxemias of scarlet fever. There are two forms of the toxemia,—one, which may be termed "primary" and due to the whole streptococcal protein, the other, termed the "essential" caused by the lysin-liberated endotoxin. The endotoxin which occasions the second or essential toxemia, we believe, causes the "rash", nephritis, etc., of the disease.

Furthermore on the basis of our experimentations we can conclude that the pathology is primarily the result of the direct action of the lysin-split endotoxin. The experimentally induced glomerular lesions are analagous to those of scarlatinal nephritis in man.

The "blanching" of the "rash" in scarlet fever with intradermal injections of antitoxin may be explained through the neutralization of the endotoxin present in the cutaneous tissues. We regard the "rash" of scarlet fever as one produced by endotoxin acting upon the vaso-motor mechanism of the small cutaneous vessels, which result in their dilatation and subsequent leakage of contents to the surrounding tissues. Neutralization of the endotoxin removes the vaso-motor disturbing factor. The dilated vessels then return to their normal calibration and in consequence the erythema disappears.

Finally the view is no longer tenable that streptococci play only a secondary role in scarlet fever. We are fast coming to recognize a variety of streptococci as independent primary factors in the causation of the disease.

DISCUSSION.

Dr. John H. Musser: It is hard to discuss an essentially original work. If you know very much about the work yourself and have had experience with it, then it is not original.

This work of Dr. Duval's is, of course, extremely interesting. I might say that his preliminary report that was published in the Proceedings of the Society for Experimental Biology and Medicine has created a great deal of interest throughout the country. When I was East this summer there was much talk about Dr. Duval's findings. His findings have changed many of the ideas of scarlet fever. This statement applies particularly to the specific treatment which we recognize now and which has been clinically so successful. The serum is now available for use by any practitioner in the form of the Dochez serum, or the serum of Parke-Davis. As I understand, this serum of Dochez's is considered as an antitoxin. It is classed as such. Birkhaug has been working with an erysipelas streptococcal type and calls his particular serum an antitoxin. As I understand it from the work of Duval, this is an anti-endotoxin serum, orprolysin serum and is not in any sense an antitoxin as we understand from diphtheria work; it is not analogous to the antitoxin of diphtheria. The method of production that Dochez used in preparing his serum insures better results on account of these findings of yours (Dochez's serum is prepared by injection of an infected agar mass into the neck of the horse and allowed to stay there until the serum is produced. The Dicks use a filtrate from cultures). I cannot quite see how your work will agree with the method of preparation of the serum of the Dicks and would like you to explain that in closing the discussion.

I would like to ask also how long these several stages last that you describe. In scarlet fever we are dealing with an infection that is rapid. In other words, I presume that these divisions occupy periods of hours rather than periods of days. The second stage is the stage that persists for a comparatively short time and the first stage, as I understand, lasts a few hours.

Another question I would like to ask: Have you used any other organisms besides the streptococcus of scarlet fever in these animals into which you have injected this lysate? Can these lesions not be produced by any other organisms?

I do want to say I appreciate very much indeed the almost epoch-making observation you have put before us tonight and to state that I think this piece of work is a great credit to you and to your co-workers.

Dr. I. I. Lemann: I would like to ask Dr. Duval if he proposed an improvement of Dochez's method of production of serum based upon his (Duval's) present report.

Dr. W. H. Harris: I had occasion about two years ago, when Dr. Duval started the work reported this evening, to be associated with him in the problem at that time. We did not undertake the experiments along the lines which Dr. Hibbard and he have later employed. We attempted to induce lesions in the lower animal by the injection of various types of streptococci and their filtrates such as the viridans, hemolyticus and the two strains from scarlet fever sent to us by Dr. Dick. We also used cultures of the typhoid bacillus and other organisms, as controls. We found that these injections were harmless to the animals inoculated with the exception of the typhoid injections which killed the animal. A letter from Dr. Dick at that time, stated that he also had been unsuccessful in his efforts to induce disease in the lower animals with his streptococcal strains. The work was suspended at that time and later Drs. Duval and Hibbard attacked the problem along the lines which Dr. Duval has described here tonight.

By employing the Pfeiffer method, they obtained from the peritoneal cavity of the rabbit a toxic filtrate which in sufficient dosage is fatal to the rabbit and produces toxic lesions in this animal. Among other lesions present they have been most interested in the kidneys, inasmuch as the importance of the injury produced in this structure through scarlet fever is already well recognized. A feature of one of the kidneys of their injected animals, which it was my privilege to see, was the apparent hemolysis present in the organ as shown by the purplish or laked blood aspect. This feature was further borne out by the large number of shadow red blood cells shown in the microscopic study. This occurrence would indicate the liberation in the animal's peritoneal cavity from which their bacteriolysate was procured, of the hemolytic principle of the scarlet fever streptococcus. It is quite likely, however, that this same factor could be demonstrated for any of the hemolytic streptococci. I do not think it is the intention of Dr. Duval to convey the impression that the streptococcus of scarlet fever is the only strain or only

organism that might produce by their method the lesions which they have described. In other words, I do not think that they regard the results as specific for the scarlet fever streptococcus. In this connection, we know that the Dicks describe two strains of their isolation, one fermenting mannite and the other not affecting it. In addition to this, other workers as Dochez and Eagles have shown the analogy of the toxic principles of the streptococcus of erysipelas and of scarlet fever.

I believe that Drs. Duval and Hibbard have added a valuable method in producing injury to the kidney through the employment of bacteria and their products in the manner described. Most of the experimental study of nephritis has been through the employment of chemical substances notably uranium rather than the biochemical substances pertinent to bacteria which the present workers have reported. Any work which will augment our facilities for the study of the important disease, nephritis, must of necessity form a valuable contribution to this field of scientific research.

Dr. L. R. DeBuys: I am sorry I was not here in time to hear Dr. Duval's paper. I do know, I believe, about the work that Dr. Duval has been doing from his other writings. There is some difference in the means by which he obtains his results and the Dicks and Dochez obtain theirs. We cannot question the results Dr. Duval has obtained in experimental animals. He seems to believe and indeed has sufficient evidence from his microscopical slides to show that the endotoxin idea is the right one. His experimental nephritis is extremely interesting. He has covered the ground so thoroughly that there is nothing to be added except to commend him upon his work.

The two infectious diseases, scarlet fever and diphtheria, have attracted much attention in the past decade, and in the latter disease rapid strides have been made in its prevention. In diphtheria we know that we can produce an immunity which is complete and which is supposed to be lifelong. It may be that the immunity primarily induced by the employment of the toxin antitoxin in itself may not be lifelong but is of sufficient duration so as to permit the individual to continue it by the usual contacts during his every day life and in that way enjoy the immunity indefinitely. This is the opinion also expressed by Zingher when I last spoke to him on this subject. The immunization against scarlet fever has not been so complete. Some investigators find that after immunization against this disease the individual may have some symptoms of scarlet fever that are modified in some way or the other; as for example a scarlet fever with no skin eruption but there being present all the other evidences of the disease. They believe the immunity is possibly not complete—that is very likely so. If it has only given partial immunity and saves the individual the complications of the disease it has done a good thing.

If Dr. Duval's ideas are correct and apparently they are, the future of scarlet fever may be as easily controlled as is diphtheria at the present time.

Dr. John A. Lanford: There is nothing I wish to say with reference to the effects of the toxin of the scarlet fever streptococcus because it has been so thoroughly discussed. However, I do wish to accentuate the importance of the discovery brought out by the work of Dr. Duval; that is, the possibility of freeing the endotoxin of these organisms, liberating it in such a manner that it seems possible to produce an immune substance that will neutralize their effects.

It is a well known fact that certain micro-organisms, exemplified by the diphtheria bacillus and tetanus bacillus, in their growth produce a soluble toxin which can be used to inject animals, which animals develop such a powerful antitoxic serum that it is used in the treatment and prevention of diphtheria and tetanus. But it is not possible in the present state of our knowledge to separate the poisonous element of the vast majority of micro-organisms which produce disease in men, such as the staphylococcus, b. typhosus, influenza bacillus and other micro-organisms including the streptococcus of scarlet fever. Therefore, if we can liberate the poisonous element of the bacteria which occur as endotoxins and immunize animals against this endotoxic substance, it might be possible to produce an immune serum of sufficient strength to be used in treating individuals with these several types of infections.

I feel therefore, that the work of Dr. Duval in developing such a method of endotoxin liberation has opened a new field of experimental research which has vast possibilities for the development of therapeutic agents for use in the treatment of most or all of those infectious organisms for which we now have no specific anti-serum.

Dr. L. von Meysenbug: From the point of view of prophylaxis Dr. Duval's work is of the utmost significance. We are beginning to think of scarlet fever in the same terms as diphtheria, immunizing exposed persons with preventive doses of scarlet fever anti-toxin. If, however, Dr. Duval's contention is correct that the toxin of scarlet fever is an endo-toxin and is not liberated until what he designates as the third stage of the disease, then we can readily see that antitoxin, given before this third stage, will have no effect in preventing the disease.

It seems, therefore, that this work is of far more than academic interest to the internist, for once the endotoxic theory becomes an established fact, our whole management of the scarlet fever problem will have to be revolutionized. It will not only be useless to give scarlet fever antitoxin prophylactically, but it will actually be a dangerous procedure, for it may sensitize the individual to serum and the serum will not protect him, a subsequent necessary therapeutic dose may lead to severe anaphylactic reaction.

Dr. Allan Eustis: Dr. Harris mentioned the fact that Dr. Duval's work has a distinct bearing on clinical medicine. I would like to ask Dr. Duval if in his opinion the pathological changes found in the kidney are due to the direct irritating effect of the endotoxins in the effort of the kidneys to excrete these substances from the blood. I judge from his paper that such is his opinion, and if so, then the practice followed by some clinicians in restricting fluids in the acute nephritis of scarlet fever, is illogical. It seems rational to suppose that the more diluted the solution of the toxins the less manifest will the toxic effect be, so that forced liquids which correspond with my clinical experience, are clearly indicated in the early stages of scarlet fever.

Dr. Duval (in closing): In answer to Dr. De Buys: There cannot possibly be any difference of opinion regarding the work reported tonight on the experimental production of scarlatinal nephritis. As far as I know we are the first to produce in the lower animal a glomerulonephritis with the active principle of the scarlatinal streptococcus which corresponds in all essential respects to the nephritis of the human disease. Certainly Dicks and Dochez have not reported the results of any work of this character. To answer the question why young children are more easily immunized with the toxin of scarlet fever than older children and adults who have not had scarlet fever, I would think that the most likely explanation is that the hemolytic varieties of streptococci are closely related biologically. The older children and adults have already acquired an immunity because of their having had at some period a streptococcal infection. In this connection I need only mention how common are streptococcal sore throats in early and adolescent life.

In reply to Dr. Musser: We are now attempting to induce nephritis in the rabbit with the active toxic principle of a number of micro-organismal species, particularly the members of the streptococcal group which are non-hemolytic and not known to cause scarlet fever. The work has not progressed far enough for me to express an opinion at this time.

In answer to Dr. Lemann: It is my belief that a more potent antitoxic serum will be possible of artificial production with the use of the endotoxic principle of scarlatinal streptococcus. While the Dicks and Dochez scarlatinal sera are efficacious from the standpoint of neutralization of specific toxin, they are not comparable in this respect to the immune serum for diphtheria. I am of the opinion that the difference is to be explained on the ground that the antigen used by Dicks and Dochez is primarily a stimulator of lytic antibody, while the antigen employed in diphtheria is solely an excitant of antitoxin. The so-called endotoxic principle of the scarlatinal streptococcus prepared in the belly cavity of the immune animal (Duval and Hibbard method) supplies us with an anti-endotoxin stimulating antigen.

In reply to Dr. Eustis: The experimentally induced glomerulo-nephritis has followed the intravenous injection of streptococcal lysate. The injection of living or killed cultures of streptococci has not given rise to lesions of any kind in the kidney. We feel sure that the nephritis of human scarlet fever is the result of toxin action and not to the presence in the kidney of the living streptococcus.

DIAGNOSIS OF FOREIGN BODIES IN THE LUNG.

F. E. LeJEUNE, M. D.,

NEW ORLEANS.

Everyone has experienced the discomfort of having a drop of water or a crumb of bread "go down the wrong way." This often occurs without any evident reason and is always followed by violent coughing and choking. An object held in the mouth may pass into the larynx with equal ease. The usual history is that with an object in the mouth an attempt is made to speak, laugh, cough or the patient is startled. The inspiration which follows is usually a strong one and the object is drawn into the larynx. McCrae further states that these foreign bodies travel downward in the air passages and may lodge in the bronchi depending upon their size and shape. There may be great variation in the immediate symptoms, depending naturally upon the character and size of the object. Many

---

*Read before Mississippi State Medical Association, Jackson, May 11-13, 1926.

cases show considerable distress with choking and coughing which gradually lessens in severity; however, if the object remains in the larynx or trachea there may be extreme distress or severe dyspnea. These acute symptoms which accompany the aspiration of a foreign body are frequently of short duration, and following this we frequently have the symptomless period, during which all signs are lacking or are so slight that they do not attract attention. This symptomless period is very deceptive and has often been responsible for errors in diagnosis.

Foreign bodies in the larynx and trachea do not usually present great difficulty in diagnosis. This is particularly true for objects lodged in the larynx, either between or above the vocal cords. These produce violent symptoms followed by a croupy cough accompanied with pain. The hoarseness gradually increases until aphonia is present. One of the most common types of foreign bodies found in this location is the sand-spur. Taylor has written an excellent article on this type of offender, while Lynch reports the removal under suspension of a triangular shaped piece of glass from the ventricle of the larynx which had been in situ for nearly a year. Hoarseness and pain, the predominating symptoms, disappeared shortly afterwards.

Objects lodged in the trachea produce violent symptoms, depending again upon size and shape. The upward and downward excursions of the foreign bodies produce a sub-glottic swelling from trauma together with a tracheo-bronchitis of more or less marked severity. Dyspnea is usually marked and increases with the sub-glottic swelling. Dependent upon the amount of obstruction, cyanosis may or may not be present. If the foreign body is movable, cough is usually accentuated, and a phenomena of great importance is the sudden closing off of the expired air. In addition to this, we frequently hear the tracheal click produced by the foreign body striking the under surface of the vocal cords. A loud wheeze is usually present, differing slightly from the wheezing sounds of bronchial asthma, being higher pitched and more intense. This has been given the name of "asthmatoid wheeze" by Jackson, and it may be heard both on inspiration and expiration. Examination of the thorax reveals little except on auscultation. The breath sounds are usually harsh and loud and greatly accentuated over the trachea. The occurrence of the wheeze, the hearing of the click, together with auscultation, are pathognomonic. The sub-glottic edema produces hoarseness and a croupy cough simulating diphtheria. I should like to take this opportunity to report briefly a very interesting case of diphtheria complicated by the presence of a foreign body in the trachea. A child of fifteen months, with suspicious history of foreign body, developed diphtheria as shown by positive cultures. Antitoxin was administered and the membrane gradually disappeared. The child had croupy cough, labored respiration and a typical asthmatoid wheeze. Bronchoscopy was performed as soon as conditions permitted and piece of charcoal was removed from trachea. Recovery was uneventful. I think this is one of the few cases where both these conditions occurred simultaneously.

Anatomists inform us that the left bronchus bifurcates from the trachea at an angle of approximately 70 degrees—while the right bronchus is not only the larger but is given off at an angle of 25 degrees. We can therefore appreciate why two-thirds of all foreign bodies lodge in the right bronchus. The size and shape of the foreign body influences the location and degree of obstruction produced, while the character of the foreign body warns us how much reaction to expect. Metallic objects cause less irritation than those belonging to the vegetable kingdom. These organic substances produce very acute symptoms which endanger life from toxemia and septic infection. By far the most toxic of this group is the peanut. This offender produces a marked inflammatory

reaction in a very short time and McCrae states the younger the child the more acute the symptoms. Purulent secretion forms rapidly, toxemia is evident and temperature is high. Dyspnea, restlessness, rapid pulse and respiration complete the picture. To this profound type of reaction Jackson and Spencer have given the name of "arachidic bronchitis."

The accurate determination of a foreign body in the bronchi presents greater problems than those lodged in the larynx and trachea. The signs of diagnostic importance for foreign bodies lodged in the bronchi are chiefly those of partial or complete bronchial obstruction. In either event, the involved area shows limitation of movement, absence of vocal fremitus, breath sounds and rales. There is dullness on percussion and in cases of partial obstruction we will find diminished intensity of breath sounds distal to the foreign body. If air is allowed to enter the bronchus on inspiration but escape is blocked off by contraction of bronchus around foreign body, we will have produced an obstructive emphysema. The percussion note would be hyper-resonant or tympanic in quality and vocal fremitus and breath sounds absent.

The Roentgen ray is undoubtedly the biggest single aid at our command in the diagnosis of foreign bodies. We are indebted to Manges for his extensive study of the diagnosis of non-opaque objects in the lung. This is done by carefully studying the changes in the tissue, particularly if air enters the lung but cannot escape, thus producing an obstructive emphysema on one side and a compensatory emphysema on the other. According to McCrae, the signs of acute unilateral emphysema are: 1. Greater transparency of affected side due to larger amount of contained air. 2. Displacement of heart and mediastinal structures to opposite side. 3. Compensatory emphysema on unaffected side. 4. Depressed and partial fixation of diaphragm on affected side.

The recent advance in the development of pneumography by the introduction of lipiodol solution into the bronchi will certainly be of value to the bronchoscopist in localizing foreign bodies or diagnosing bronchiectasis. Foreign body cases of long standing have frequently been diagnosed as tuberculosis in spite of negative sputum examinations, while acute cases have often been called pneumonia or diphtheria.

The differential diagnosis of roentgenograms of tracheal and esophageal foreign bodies occasionally presents some difficulty. We must bear in mind the anatomy of the structures involved. The trachea is an open tube closed antero-laterally by the tracheal rings and posteriorly by membraneous wall. On account of the structure of the larynx, disc-shaped foreign bodies enter antero-posteriorly and assume a position in the sagittal plane. A disc entering the oesophagus must pass flat-wise behind the larynx and assume a flattened position in the lateral plane.

A fuller appreciation of the history, signs and symptoms will facilitate the recognition of the unusual cases and assist in the differential diagnosis of pneumonia, diphtheria, empyema and tuberculosis which are so often confounded with foreign bodies in the air passages.

BIBLIOGRAPHY.

Clerf, Louis—Peroral Endoscopy, Archives of Otolaryngology, March, 1926, 3:265.

Jackson, C.—A New Diagnostic Sign of Foreign Bodies in Trachea and Bronchi, the Asthmatoid Wheeze, Am. J. M. Sc., Nov., 1918, 156:625.

Jackson, C.—The Symptomatology and Diagnosis of Foreign Bodies in the Air and Food Passages, based upon a study of 789 cases, Trans. Am. Laryn. Rhinol. and Otol. Soc., 1920, 226.

Jackson, C.—Bronchoscopy and Esophagoscopy.

Jackson and Spencer, W. H.—Arachitic Bronchitis, Journal A. M. A., August 30, 1919, 73:672.

Lynch, R. C.—Fluoroscopic Bronchoscopy, Esophagoscopy and Gastroscopy. The Laryngoscope, November, 1920.

McCrae, Thomas—Clinical Features of Foreign Bodies in the Bronchi. The Lancet, April, 1924, 735, 787, 838.

McReynolds, Geo. S.—Report of Cases of Foreign Bodies in the Lungs and Esophagus with special reference to points of Diagnosis. Texas State Journal of Medicine, September, 1924, 5:284.

Rowland, R. S.—Foreign Bodies in Air and Food Passages with Special Reference to Clinical Diagnosis. American Journal Dis. Child, August, 1924, 28:182.

Taylor, H. M.—Endoscopic Removal of Sand Spurs from Larynx and Tracheo-Bronchial Tree. Journal A. M. A., 1921, 685.

Lynch, R. C.—Symptoms & Diagnosis of Foreign Bodies in the Bronchi and Esophagus. Med. Progress Louisville, 1922, 131:133.

DISCUSSION.

Dr. E. F. Howard: This is very real stuff we can all take home with us. I was especially interested in what Doctor LeJeune had to say about small non-opaque things getting into the bronchi. If we have anything in the upper air passages it generally points to the diagnosis; when we have a bit of metal in a bronchus the X-ray man can help us out on it generally, but when it comes to the non-opaque stuff we are up against a real proposition. I recall with a great deal of interest a small piece of chicken gizzard, or turkey gizzard, I don't remember which it was, but it was gizzard, and it got down into the right of the lung. There was a period of quiescence, and that always blurs the picture. The family and the patient himself forgot about the little initial attack. I think probably this piece of chicken gizzard might have caused some pretty serious complications, but for the fact that the patient was kind enough to get it up himself, and he got it up into a cup, retrieved it and recognized it, and then his mind went back over what he had been through a few days before. He fitted the whole story together himself, and was able to demonstrate the fact that it was gizzard to the people around, and his remarks concerning the physicians who had been attending to the case for forty-eight hours were neither charitable nor kind. We can save ourselves a great deal of trouble of this sort if we will keep before us the clear word picture that Doctor LeJeune has drawn of that particular type of cases. It will help us a lot.

Dr. Ross E. Anderson (Jackson): I should not rise to discuss this paper, except as a mark of respect to my friend and teacher, Doctor LeJeune. I do not want him to think that I myself claim to know anything about foreign bodies in the lungs, and yet I had occasion to work in the Eye, Ear, Nose and Throat Hospital in New Orleans where Dr. LeJeune and Dr. Lynch worked, and of course I naturally learned a little about it, and had occasion to see quite a bit of bronchoscopy and esophagoscopy. I recall one case during the past winter—I am sure Dr. LeJeune will recall the same case—of a small child, about five years old that was brought in; I do not recall just what symptoms it had, but it was wheezing, had a little fever, had lost weight and was anemic; they suspected it might have something in its lungs. The X-ray did not show anything. That was one case where the X-ray did not make the diagnosis. Dr. LeJeune later passed the bronchoscope and removed a watermelon seed from the child's left bronchus. It was found that the watermelon seed had been here ever since last summer. The child made a quick recovery.

I recall another case of a foreign body in the esophagus, to digress a little bit, where the X-ray did not show a large button which Dr. LeJeune later removed after passing the esophagoscope. The point that I am trying to make in both of these cases is this: that the X-ray does not always show these foreign bodies. I enjoyed this paper very much.

Dr. L. S. Gaudet: Doctor LeJeune has given us a very valuable paper. But bronchoscopy has gotten to be such an exact science, we not only use the bronchoscope for the removal of foreign bodies, but we use it for diagnostic purposes. It is not only used for the removal of foreign bodies and in making diagnosis, but in treatment of lung abscesses. I worked under Doctor Lynch several years ago, and with Doctor LeJeune, and we had some very remarkable cases. As the Doctor just stated a while ago, every now and then a case would come that would really present some obstacle more than the past and it would be of much more interest. To my mind, bronchoscopy has gotten to the point where more of us ought to use it. One of my confreres at Natchez some time back had a case of an old gentleman who occasionally would spit blood. That case came to me, and I would have been very glad to have done a bronchoscopy to find out where that blood was coming from, and the cause of it. I afterwards learned that he had cancer of the lung. Probably if we could have made a diagnosis earlier we could have done something for the patient.

Dr. George E. Adkins: May I add just a little bit from the standpoint of the X-ray? Most of these eye, ear, nose and throat men, when they get a little time, play golf; and I have a habit of playing with the X-ray. I spend about half of my time playing with it; and I find there is a way you can make a diagnosis complete with the X-ray. You can't do it every time with the Roentgen Ray. It should be done both ways. If you have a picture it will show any opaque substance. In other words, put your case under the Fluoroscope and watch it, and you will get restricted lung movements, and if you will watch for the things the doctor has outlined, and especially the expansion and contraction of the lung, you are pretty apt to locate any kind of body. There is a place in there filling up just as equal with the

other lung, but it doesn't contract; it is the last part to contract. The radiograph will not do this: The X-ray will rule out the other inflammatory conditions of the lung you may be confused with; it will rule out the malignant type; it will rule out your pneumonia; and you can rule out your possible lung abscesses, etc. You can do a lot towards making the diagnosis of that foreign body if you will go both ways.

Doctor LeJeune mentioned restriction of the diaphragm. I have gone over that pretty thoroughly, and I find nearly any inflammation in the abdomen or in the lung will restrict the movements of the diaphragm.

Dr. Fairfax: I want to thank Dr. LeJeune for bringing this paper, and I want to confirm what he says about the danger of peanut hulls. I had the misfortune to have a patient three years old, and I diagnosed it as broncho-pneumonia, and finally after about six months it developed an abscess of the lung. That was sixteen or eighteen years ago, and at that time they had not learned the use of the bronchoscope or X-ray so well; and we opened up this abscess and found a piece of peanut hull in the lung abscess cavity. It doesn't always show up right away, but may give trouble several months afterwards.

Chairman McWilliams: I was told this morning of a headache that comes on after a hemorrhage. I have had another experience which gave a worse headache than I ever had following tonsil headache. I had a patient about a year ago on whom I was going to do an ethmoid and sphenoid on the right side. When I went to remove the middle turbinate, I used scissors to cut it off partially, and when I snared off the middle turbinate I reached around to get the forceps to get out the middle turbinate, and it was gone. I asked him to spit it out, and he said there is nothing there. It was gone. I looked for that middle turbinate everywhere; but I kept worrying about that middle turbinate, and wondered where it could be, because it was a large middle turbinate and could not be lodged in the nares without being visible. Anyway, the patient got along all right until the next day. About twenty-four hours afterwards he had a violent coughing spell and pain in the right side. The patient was asthmatic —had always had asthma on the right side of his chest, and there was dullness and all the symptoms of a lung abscess. The X-ray was negative for any foreign body, but showed old scars in his lungs, supposed to have been an old healed T. B. and on account of that, this side of his chest was very much larger than the other. I got his family physician to come down, and Henry Boswell to come, and they all agreed that it was localized, not an abscess; they didn't know what it was, but said it was not a foreign body in his lungs. In a way, that made me feel better, but still I was sure there was something—that middle turbinate was somewhere. We examined his stools, and did everything, except bronchoscope. But after a week his temperature was normal and he stopped coughing, for several years he had had violent spells of coughing with his asthma; he still had those violent coughing spells until about two months after the operation, he began to cough out that middle turbinate. That certainly was a pretty sight to see that middle turbinate. I was glad my diagnosis was confirmed. Since that I have never snared a middle turbinate off without catching hold of it; I wouldn't risk another snared off without having hold of it for anything. I have had one or two to swallow them, but I don't think I will ever have another case to even swallow a middle turbinate.

Dr. F. E. LeJeune: I should like to emphasize the importance of taking a complete history from the very outset of all cases. A complete history is very important in all suspected foreign body cases. I should also like to emphasize the importance of going over your patient's chest thoroughly and repeatedly, not once or twice, but go over the chest until you can find all your symptoms and signs that might indicate you have a foreign body present. I believe any patient who presents himself with a suspicious history of a foreign body in the lungs should be given the benefit of a bronchoscopy. Bronchoscopy is not attended with any danger, provided it is done properly and carefully.

I should again like to call your attention to the development of pneumography, such as Doctor Iglauer mentioned at the Southern Medical Association last week. He is doing wonderful work along these lines. I think that will mean a big thing to us later on in our diagnosis of lung conditions, be it bronchiectasis or non-opaque foreign bodies.

I should also like to mention one of the newer foreign bodies that has been described by Roland in the Journal of the Diseases of Children. He mentioned two or three cases of the aspiration of baby powders. Children had been given boxes of powder to play with, and somehow or other the box had come open and they aspirated these powders. One case in particular the child smothered to death before anything could be done.

About the X-ray pictures—it is not every radiologist who can take a picture, according to what Manges says, showing the presence of a non-opaque body. The picture must be taken at the end of the expiration, and unless the radiologist knows this he cannot take a very good picture. I thank you for the discussion of my paper.

NEW ORLEANS
Medical and Surgical Journal
Established 1844

Published by the Louisiana State Medical Society under the jurisdiction of the following named Journal Committee:

S. M. Blackshear, M. D., *Ex-Officio*
For three years, A. A. Herold, M. D., *Vice-Chairman;* Lucien Ledoux, M. D.
For two years, Oscar Dowling, M. D.; H. W. Kostmayer, M. D., *Secretary.*
For one year, H. B. Gessner, M. D., *Chairman.*

EDITORIAL STAFF

H. W. E. Walther, M. D.....*Editor*
H. Theodore Simon, M. D.....*Associate Editor*
J. S. Ullman, M. D.....*Associate Editor*
Paul T. Talbot, M. D.....*General Manager*

COLLABORATORS—COUNCILORS

For Louisiana	For Mississippi
H. E. Bernadas, M. D.	J. W. Lucas, M. D.
F. M. Johns, M. D.	D. W. Coker, M. D.
F. T. Gouaux, M. D.	M. W. Robertson, M. D.
S. C. Barrow, M. D.	T. W. Holmes, M. D.
F. C. Bennett, M. D.	D. W. Jones, M. D.
C. A. Weiss, M. D.	W. G. Gill, M. D.
V. A. Miller, M. D.	E. M. Gavin, M. D.
S. J. Couvillon, M. D.	W. H. Frizell, M. D.
	S. B. McIlwain, M. D.

***SUBSCRIPTION TERMS:** \$3.00 per year in advance, postage paid, for the United States; \$3.50 per year for all foreign countries belonging to the Postal Union.*

News material for publication should be received not later than the twentieth of the month preceding publication. Orders for reprints must be sent in duplicate when returning galley proof.

THE JOURNAL *does not hold itself responsible for statements made by any contributor.*

Manuscripts should be addressed to the Editor, 1326 Whitney-Central Bldg., New Orleans, La.

The Religion that is afraid of science dishonors God and commits suicide.—Emerson.

DR. KELLS HONORED.

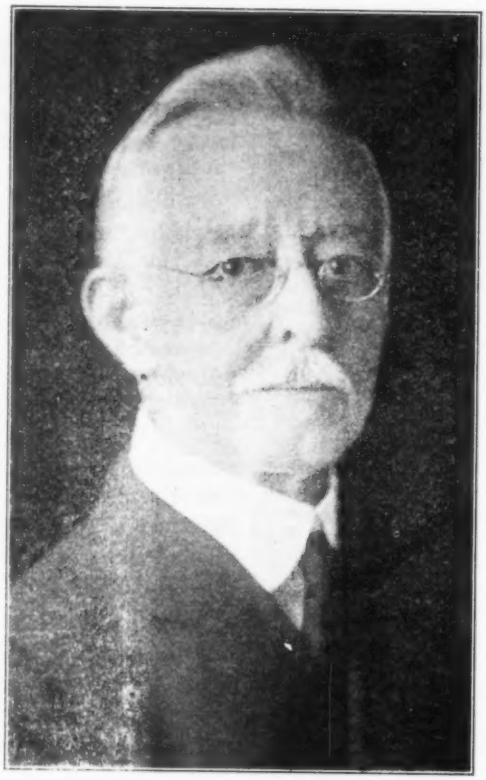
The evening of Wednesday, January 19 past, marked an epoch in the medical history of New Orleans. On that date, under the auspices of the First and Second Districts Dental Society, the Orleans Parish Medical Society and the Tulane University of Louisiana, organized dentistry and medicine paid tribute to Dr. C. Edmund Kells in appreciation of his fifty years of valiant services in the interest of advancing the literature and science of dentistry. It was a most fitting moment for Tulane, represented by Dr. A. B. Dinwiddie, president of the university, to confer upon so noted a man as Dr. Kells the degree of Doctor of Laws—an honor that has come to few, among those in the past being Woodrow Wilson, Marconi and Marshal Foch.

Among the speakers on the occasion to laud the many advances to dental and radiological science made by Dr. Kells were, besides President Dinwiddie who presided, Dr. Rudolph Matas for the medical profession, General Allison Owen for the civic organizations of New Orleans, Mr. George Denegre for the public, and Dr. S. H. McAfee for the dental profession. Standing upon the rostrum and facing the packed amphitheatre of the Hutchinson Memorial Building, the heroic figure of Dr. Kells, with one empty sleeve in mute testimony of the arm he has sacrificed in the interest of advancing our knowledge of the x-ray in dental surgery, made a picture that will not be soon forgotten. This is truly a wonderous age in which the world pays tribute to its pioneers of science while they are living instead of waiting until they are dead.

To Dr. Kells is given the credit of being the first to use the x-ray in dental diagnosis. For his original investigations with the x-ray in dentistry he received the Jarvie Fellowship and gold medal, the highest honor the dental profession of America can bestow. Last October the Odontographic Society of Chicago summoned Dr. Kells to celebrate his seventieth birthday in their midst and a sumptuous banquet at the La Salle served to demonstrate with what high esteem they held this master in his field of research.

His contributions to dental literature are as equally well known as his works in dental x-ray research. He is the author of "The Dentist's Own Book"; "Three Score Years and Nine"; and is contributor of three chapters to "Johnson's Textbook on Operative Dentistry." He has written over a hundred scientific papers on the verious phases of dental science.

His inventive genius has been ever a wonderment to his friends and associates. Over thirty of his inventions have been patented, one of much interest and value to the medical profession is the Kells electro-motor suction apparatus for the aspiration of fluids in surgical operations, and which has been adopted, at least in principle throughout the world.



DR. C. EDMUND KELLS

Dr. Kells was born in New Orleans October 21, 1856, the son of a dentist—Dr. Charles Edmund Kells. He was educated in the public schools of his native city and those of Keene, New Hampshire. He received his degree of D. D. S. from the New York Dental College in 1878.

The friends of Dr. Kells will assemble a dental library and museum at Tulane which will bear his name. Contributions of anything pertaining to dentistry are desired: books, journals—old and new—instruments, specimens, etc. For the present the library and museum will be housed in the Science building on the Campus and President Dinwiddie has promised to increase the space as needed. All desiring to make donations of any nature may communicate with Dr. Kells, Dr. Grosjean or Dr. McAfee.

DECENT ADVERTISING.

Do you believe in honest advertising? Or, in your opinion, is honesty only a means to an end when others fail to achieve results? These are momentous questions because a company or an individual, regardless of the commodities both have for sale, utilize the advertisement method in order to further their personal interests. The advertisement is a mouthpiece which uses the picture or the printed word to instruct the public. And there may be much incorrect and misleading information craftily concealed in the flowery verbiage of an advertisement.

The principles of psychology are embodied in the adroit advertisement. Pick up any newspaper, popular magazine or medical journal and read over the advertisements one after another. Analyze them and see what they convey, and what impression they make on you. If you stop to think, and to criticise, you will note that the overwhelming majority have a sensational appeal that is not justified by the content. The main ideas which the advertisement aims to implant in the reader's mind are, first, superiority, second, infallibility, and third, necessity. You are told that you need a never failing product which has no peer in its line.

How much of the impression conveyed in this subtle way is true and how much is false? All is true, if you are one of the uncritical myriads of "suckers" said to be born every minute. Indeed it is often

difficult even for one who is "hard boiled" to sift the true from the false; usually the truth is only forthcoming after due trial and strict examination. At the same time the wise and sophisticated ones will observe certain ear marks of the professional advertisement writer that invariably crop out and which he seems unable to avoid. They are such palpable exaggerations that one often wonders how people are led astray by them. But the fact remains that the overwhelming mass of humanity consistently fall for sensational sob stuff.

As an example, we wish to allude to an advertisement of this nature which recently appeared in one of our most esteemed daily newspapers. We feel sure that the publisher and editor were misinformed regarding the potential danger to the public embodied in this advertisement. It consisted of one whole page devoted to the sensational claim of a "long distance" artist in medical quackery. This man, who though a regularly graduated physician, has so far departed from the ideals of the profession in his lurid chase after the dollar that he lends his face, or what purports to be his face, and his name to a nefarious business. His activities were the subject of investigation by Samuel Hopkins Adams twenty years ago and they received their just appraisal in Adams' famous exposure of the nostrum and quack evil in Collier's Weekly.

Now he or his heirs bob up in a new role, which so far as we can judge, is no more worthy of decent people's regard than was that which attracted the attention of Adams. The merry old game of gulling the public still blooms like a hardy perennial, only shedding its leaves in times of storm and stress to appear once more with new foliage when things quiet down.

To what does this capitalization of human frailty lead? It leads to dishonest, misleading, fraudulent advertising, such as we see in our newspapers and journals every day of the year. And there is no more lucrative field for the "get rich quick" gentry than the sufferings of mankind. To some people the promise to cure or relieve an ailment before which scientific and rational therapeutics is powerless is like the proverbial straw; they are the fish drawn into the net of the patent and proprietary medicine man. This advertising is pernicious, dishonest and criminal; and do not make the mistake of thinking that such means to "work" the public are not in full swing and swelling dividends. Walk into any drug store and look at the fancy labeled products which provide bulk and lend tone to the druggist's shelves; the real things are hidden—behind the prescription counter. The wrappers of the patent and proprietary medicine cartons are so colored and worded that few can resist the appeal to both eye and fancy. This is a form of dishonest advertising which the druggist claims he deplores, but which he cannot do without because the public "demands" the patents and—because they help the proprietor to meet the overhead.

Reflect on another phase of, we will not say dishonest, advertising, but one which, while regarded as legitimate, often verges on doubtful ethics. We refer to circularizing of physicians by firms, good, bad and indifferent. The plea is that this is the only way to get a really good thing before the profession. These concerns know or possibly are indifferent to the fact that many doctors but infrequently read the critiques of the American Medical Association's Council which passes on advertised mixtures and drugs, natural or synthetic. Anyhow they are safe in giving the credulous medico a fling, and they usually get by with it for a while. How many really worth while remedies are placed before the profession in this manner? It is safe to say that 95% of them only lead to disappointment when they are tried out in an emergency. Then too, many of them are only fancy names for more prosaic mixtures of the National

Formulary. Is it legitimate advertising to influence the medical profession into experimenting while at the same time paying the drug house for the doubtful honor? We'll say it is not, but for the present it seems to be part of the game.

Advertising is necessary for any business or profession. There are no higher standards adopted and in the main adhered to than those of the medical profession. But there is no evading the conclusion that it knowingly or unconsciously plays into the hands of those whose calling in life is to sell; whether or not the goods are delivered is a matter of indifference. There should be a more concerted stand taken against the fraudulent, misleading and frankly dishonest advertisements continually appearing in print and on packages. And no better organization than the Propaganda for Reform Department of the American Medical Association could be taken as a model.

METRIC URGERS LAUNCH NATION-WIDE CAMPAIGN.

With the beginning of 1927, advocates of decimal metric weights and measures for the United States have organized for an energetic campaign. At its recent annual convention in Philadelphia, the Metric Association outlined plans for greatly increased activity.

The All-America Standard Council, with headquarters in San Francisco and Washington, D. C., is urging prompt legislative action by Congress, establishing the decimal metric units for general use in merchandising throughout the United States after 1935. Its executive announces that metric standardization is urged by Thomas A. Edison, John Hays Hammond, Samuel Vauclain, John J. Pershing, Theodore Roosevelt, Franklin D. Roosevelt, Arthur Capper, E. N. Hurley, William G. McAdoo, Roger Babson and many others eminent in national affairs.

Led by such influential groups as the New Orleans Association of Commerce and the Washington Manufacturers' Association, more than 300 important chambers of commerce and industrial organizations are urging liberal metric legislation.

Among other important organizations advocating the metric adoption are the National Wholesale Grocers' Association, American Institute of Architects, National Wholesale Druggists' Association, Associated General Contractors of America, American Institute of Architects, National Congress of Mothers and Parent-Teachers' Associations, Institute of Radio Engineers and the National Research Council.

More than 100,000 petitions urging metric legislation have been placed before Congress, and as many of these are from large organizations, altogether they represent several million voters. The States of Illinois, California, Tennessee, North Dakota and Utah are among those which through their legislatures have petitioned Congress to adopt the metric standards for all the people.

The great Pan-American Standardization Conference, to be held in the United States during 1927, is expected to emphasize the need for the world-uniform decimal metric measures in commerce. All the American republics except the United States are already on the metric basis in merchandizing.

CORRESPONDENCE.

Vivian, La., February 10th, 1927.

Editor, New Orleans Medical and Surgical Journal, New Orleans, Louisiana:

Dear Sir: I read with interest, in the February number of the *Journal* a letter from Dr. Guy A. Caldwell of Shreveport, Louisiana, in which he emphasized the fact that the community is not being rendered prompt and efficient medical service; that the sick are dying in great numbers for the want of good diagnosticians, competent general practitioners who can recognize danger signals when they meet them and who have the vision and courage to take hold of cases who need prompt relief and get them to a hospital

without delay, where medical and surgical measures can be administered.

Dr. Caldwell's criticism is constructive and I hope it has awakened a response in the life of every general practitioner, as it has in mine. I am doing general practice in a town of two thousand people and know the task of a busy practitioner, caring for the sick scattered over an area of 20 or more miles square, and at the same time trying to keep abreast with the advance of scientific medicine.

How to be a good diagnostician. How to be alive, keen and alert, ready and capable of giving prompt relief or directing our patients where relief can be had, is the task of every general practitioner. Many of us fail to measure up to this requirement. Why this deficiency and how to correct it is the question emphasized by Dr. Caldwell. We all agree that education is the remedy. A constructive educational program should be arranged and systematically pursued. Dr. Caldwell seems to think the journal by publishing articles on live, practical subjects, would be the best means of education. This is good so far as it goes, but the practitioner who needs it most would not be benefited because he does not read his medical journals. Something must be done to stimulate him to read more before he can be helped. I think the local and district societies are the best means of bringing about this education. Their programs should be made to appeal to the general practitioner. They should be full of life on practical subjects. Personal work should be done to induce the general practitioner to attend these meetings. When he becomes interested he will subscribe for more medical journals and eagerly read them. Caddo Parish has a large medical society, well attended by men doing special work, but the general practitioner throughout the parish who needs it most, seldom attends.

Let the work begin at home. Let the local and district societies get busy and give the general practitioner a program that is helpful to him in his busy life and soon we will have better attended meetings, a better informed profession, and fewer lives will be lost.

H. B. WREN, M. D.

TISSUE DIAGNOSIS IN THE OPERATING ROOM.

And Immediate Cover-slip Examinctions of all Fluids and Pus.

Baltimore, February 3, 1927.

To the Editor:

I will consider it a courtesy if you will publish this letter in your journal, as I am anxious to come in correspondence with pathologists and surgeons interested in the immediate examination, by frozen section, of tissue in the operating room and the immediate cover-slip studies of smears from all fluids and pus.

Microscopic examination of stained frozen sections has been possible for more than a quarter of a century, The staining of unfixed frozen sections with polychrome methylene blue and other stains is a well-established procedure. In many operating rooms in university and other large and small surgical clinics, provisions for these immediate diagnostic studies have not only been available, but have been in practical use for years. While, unfortunately, on the other side, this diagnostic part of the operating room is conspicuous by its absence in many clinics.

Before 1915 it was rarely necessary for a surgeon well trained in gross pathology to need a frozen section to help him in diagnosis at the operating table. Since 1915, and especially since 1922, the public has become so enlightened that malignant disease formerly easily recognized either clinically or in the gross, now appears in our operating rooms devoid of its easily recognized clinical and gross appearance and can only be properly discovered by an immediate frozen section. The majority of operating rooms are not equipped or prepared for this new diagnostic test.

The first essential part of this diagnosis is the technician—one to cut and stain the frozen section, or to make and stain the smear. The second is a pathologist trained to interpret it. It is possible for the surgeon to be all three in himself, and some young surgeons are so equipped. In others it is a dual combination—surgeon and pathologist in one, and the technician. More frequently it is three—operator, technician and pathologist. It makes little difference whether it is one, two or three individuals, providing each has the equipment and training for this most difficult diagnostic test.

In the address as chairman of the surgical section of the Southern Medical Association, I discussed biopsy, and this paper has been published in the Southern Medical Journal for January, 1927 (Vol. XX, page 18.) A reprint of this paper will be sent to anyone on request. The chief object of this letter is to come in contact with surgeons and pathologists who are sufficiently interested in this problem to discuss it either by correspondence, or by attending a meeting in the surgical pathological laboratory of the Johns Hopkins Hospital, either the Monday before, or the Friday after the meeting of the American Medical Association in Washington.

Schools for technicians may have to be established in different sections of the country, and the surgical pathological laboratories of the medical schools and the larger surgical clinics should offer courses in this tissue diagnosis, so that surgeons may learn to become their own pathologists, or pathologists learn the particular needs of the surgeon in tissue diagnosis in the operating room.

It is quite true that when the majority of the public is fully enlightened, the surgeon will see lesions of the skin and oral cavity and the majority of subcutaneous tumors when they are so small that their complete excision is not only indicated, but possible without any mutilation. The chief danger here will be a surgical mistake—the incomplete removal of an apparently innocent tumor. There is no necessity here for biopsy. If a proper local excision is done, no matter what the microscope reveals, that local operation should be sufficient. But when lesions of the skin, oral cavity and soft parts are extensive and their complete radical removal mutilating, then there must be biopsy to establish the exact pathology.

In tumors of the breast and disease of bone, for years, the diagnosis could be made clinically, or from the gross appearance at exploration. But now, in an increasing number of cases, the breast tumor must be explored, and the gross pathology of this earlier stage is not sufficiently differentiated to allow a positive diagnosis. Immediate frozen sections are essential to indicate when the complete operation should be done. The same is true of the earlier stages of lesions of bone. The X-rays no longer make a positive differentiation between many of the benign and malignant diseases, for example, sclerosing osteomyelitis and sclerosing osteosarcoma.

We must not only specialize in tissue diagnosis, but we must organize this department so it will function properly in as many operating rooms as possible in this country.

Then there is a final and most difficult question to consider. I doubt if it can be settled. What shall be done in those operating rooms in which there is no technician to make the sections and no one trained to interpret the microscopic picture? How can a piece be excised or a tumor removed, for example, from the breast, and this tissue sent to some laboratory for diagnosis without incurring the risk of the delay to this patient. I have discussed this point in my paper on biopsy.

JOSEPH COLT BLOODGOOD,

Surgical Pathological Laboratory, Johns Hopkins Hospital.

LOUISIANA STATE MEDICAL SOCIETY

New Orleans, La.
February 5th, 1927.

Dr. Oscar Dowling, President,
Louisiana State Board of Health,
New Court Building,
New Orleans, Louisiana.

Dear Doctor Dowling:

At a session of the Executive Committee of the Louisiana State Medical Society, January 28th, 1927, the following resolution was adopted:

"*Whereas*, Milk is conceded to be the most important single article of food in the human dietary and is particularly valuable as food for children and adolescents, and

Whereas, Milk is also an excellent food for bacteria it is most important that our milk supplies be scrupulously safeguarded from danger of contamination, and

Whereas, The U. S. Public Health Service ordinance for milk control which the State Board of Health is recommending for adoption by municipalities is fair and reasonable in its requirements and has been shown by experience to give protection to the consumer and at the same time increase the consumption of milk by establishing public confidence in the safety of a supply,

Therefore, be it resolved, That the Louisiana State Medical Society endorse this ordinance and recommend its adoption by the municipalities of the State."

Yours very truly,

(Signed) P. T. TALBOT,
Secretary-Treasurer.

INTERNATIONAL ASSOCIATION OF DAIRY AND MILK INSPECTION.

Washington, D. C.
January 24, 1927.

Executive Officer,
State Department of Health,
Baton Rouge, La.

Dear Sir:

The International Association of Dairy and Milk Inspectors having for its object the development of uniform and efficient inspection of dairy farms, milk establishments, milk and milk products, at its fifteenth annual convention in Philadelphia, October, 1926, adopted the following resolutions:

Whereas, this Association recognizes milk as the first necessity of life, and that inspection of the sources of production, distribution, and careful chemical and bacteriological examination of milk is necessary in the protection of the public health; therefore, be it

Resolved, That the International Association of Dairy and Milk Inspectors urgently recommends to the various State and city departments of health that in the selection of those who are to fill the positions of dairy and milk inspectors, special effort be made to employ only those who are entirely reliable, thoroughly competent, and well qualified adequately to safeguard milk supplies and properly protect the public health; and, be it further

Resolved, That a copy of this resolution be mailed to each State Department of Health with the request that it be published in the bulletin of the Department.

Trusting the foregoing will be helpful to you in your work, I beg to remain

Very respectfully,

(Signed) IVAN C. WELD,
Secretary.

ORLEANS PARISH MEDICAL SOCIETY.

1551 Canal Street.

New Orleans.
February 7th, 1927.

To the Mayor and Commission Council,
City of New Orleans,
City Hall,
New Orleans, La.

Gentlemen:

The following is a resolution passed at the meeting of the Board of Directors of the Orleans Parish Medical Society Monday, February 7th, 1927, relative to the proposed Milk Ordinance for the Parish of Orleans.

Whereas, the physical welfare of the public, more especially infants and growing children, depends to a large extent upon the abundant use of wholesome milk in the dietary, and

Whereas, of all foods, milk is most liable to detrimental or dangerous bacterial contamination, and

Whereas, the City and State Boards of Health are the authorities on which we must rely in all matters pertaining to the sanitary quality of milk, and are moreover, charged by law with the duty and responsibility of safeguarding the milk supply against the dangers of contamination, and

Whereas, the said City and State Boards of Health, after having thoroughly investigated all phases of milk sanitation, have agreed upon the U. S. Public Health Service Standard Ordinance as being the most practical and effective of all proposed measures for insuring the desired safety and wholesome quality in the milk supply of New Orleans, and

Whereas, this Standard Ordinance is fair and reasonable in its provisions and has been shown by experience to bring about an increase in milk consumption, and consequently an increase in the business of the dairymen, by establishing public confidence in the safety of the supply,

Therefore be it resolved, That the Orleans Parish Medical Society hearily endorse the Ordinance proposed by the City Board of Health and urge its immediate adoption by the Commission Council of New Orleans,

Be it further resolved, That a copy of this resolution be sent to the Mayor and Members of the Commission Council, to the Superintendent of Public Health, and to the local press.

Very truly yours,

(Signed) H. THEODORE SIMON, M. D.,
Secretary.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

ANNUAL REPORT OF SECRETARY, 1926.

Dr. H. Theodore Simon

To the Officers and Members, Orleans Parish Medical Society:

As Secretary of your Society it is my duty to enumerate the many happenings of the past year many of which are other than of a truly medical nature. It is my hope to be as brief as possible, at the same time endeavoring to give you a complete report.

Some facts mentioned will be further dwelt upon by other officers and chairmen of various committees, and I beg your indulgence in this repetition which custom has made necessary.

During this past year the Society has been fortunate in having two of its members signally honored, Dr. Rudolph Matas was the recipient of the Bigelow Medal, which is the highest attainable honor which can be bestowed upon a surgeon in our United States. Dr. Amedee Granger was presented with a gold medal by the Radiological Society of North America for his original work on x-ray of the sinuses of the skull, which work has virtually revolutionized this particular phase of roentgenology.

MEMBERSHIP.

The present total membership is 483, of whom 448 are Active Members, 18 Interne Members, 14 Associate Members and 3 Honorary Members. Drs. P. B. McCutchon and H. S. Cocram both retiring from active practice and both being members from practically the infancy of the Society, were elected to Honorary Membership. Losses during the year were 32. These were: due to deaths, 6; dropped for delinquency, 6; resigned, 5; removals, 12; and suspension for unprofessional conduct, 3. There was a net gain of 34, which is represented as follows: new members, 31; reinstated, 3. When one considers that in the Parish of Orleans we have 616 licensed physicians and surgeons of which number possibly 80 or more are interne members, it is readily seen that there still remains about 100 practicing physicians who are not members of this Society. It is doubtful if more than 30 or 40 per cent of this number would be acceptable candidates for membership. Therefore the total active membership of this Society at best will possibly never be more than 475 or 480. This means an increase of 30 or 40 new active members and an attempt by the membership at large could in the next year easily bring in this number.

MEETINGS.

The Board of Directors has held ten meetings. All members of the board worked diligently during this past year co-operating with the president and other officers in an attempt to dispose of many matters brought before them. The Society has held twenty-one general meetings during the year, of this number there was the installation meeting, ten scientific meetings, three quarterly executive meetings, four clinical meetings and three special meetings. The average attendance at these meetings was 101, 84 beings members of the Society. In going over this attendance it is interesting to note that at the three meetings at which papers were presented by noted physicians from other parts of the country the attendance was around 150. At best, an attendance of 150 with a membership of 480 is exceptionally poor and all endeavors should lead to an increase in attendance at meetings. The papers read at the scientific meetings were of the highest order, some of the work being original. Discussions were rather free and as a whole from a scientific standpoint the Society has had a brilliant year; this I feel is partly due to the ceaseless and untiring efforts of the Scientific Essays Committee and its Chairman, Dr. Emmett L. Irwin. Papers were presented by six physicians from other parts of the country among whom were Dr. H. Gideon Wells of the Sprague Institute of Cancer Research of Chicago; Dr. Philip S. Hench of Rochester; Dr. James T. Case of Battle Creek; Dr. Emanuel Leibman of New York; Dr. Morris Fishbein of Chicago and Dr. Allen O. Whipple of New York. The membership was also invited to a meeting under the auspices of the Tulane School of Medicine at which Dr. Counselman of the Harvard School of Medicine read a paper.

DUES.

As everyone is well aware, the annual dues of the Society for active membership have been increased. This increase was imperative and timely and with it the Society is able to carry on in a more businesslike and efficient manner. It is gratifying to know also that 50% of the dues have been collected in advance which curtails the excessive clerical work necessary when all dues were collected quarterly as had been the custom heretofore.

DOMICILE.

The Society has gone on record as being opposed to the purchase of a domicile site and has definitely passed resolutions relative to accepting the generous offer of the Board of Administrators of the Tulane Educational Fund to re-

main as presently housed with the Tulane School of Medicine. It is hoped that the new domicile for the Tulane School of Medicine will soon be erected and that more space be given for our ever increasing library and that more comfortable quarters will be allotted than under existing conditions.

ANNUAL BANQUET.

The Society has voted the continuance of the annual banquet to be held following the election which takes place on the second Saturday in December. This custom has brought into the Society a congenial social occasion which is enjoyed by all who participate and in the future an effort should be made to have the entire membership attend.

STANFORD E. CHAILLE MEMORIAL ORATION.

The Board of Directors has voted the money for an oration to be delivered by some prominent physician or surgeon on some important topic yearly, preferably in the month of November. This oration is to commemorate the memory of the illustrious and well-known Dr. Stanford E. Chaille.

REVISION OF THE BY-LAWS.

The revision of the By-Laws started by the last Board of Directors has been constantly before the present Board. This revision is almost in form for presentation to the general body for their consideration.

JOURNAL.

The transactions of this Society are now listed under a separate heading in the official organ of the Society, the New Orleans Medical and Surgical Journal. This arrangement being far more satisfactory than heretofore when the reports of the Society were under News and Comments of the Journal. These transactions give to a member all of the happenings at all of the meetings of the Society and the Board of Directors. The Secretary of this Society now ipso facto becomes associate editor of the New Orleans Medical and Surgical Journal with jurisdiction over the news and comments from Louisiana. The minutes of the clinical meetings held in conjunction with the staff of the Charity Hospital are now being published in the Journal. This is in my opinion a decided advancement as cases presented at these meetings are cases of unusual interest and often rarity and it happens sometimes that no more record is ever made of these cases in future papers so that we can see the advantage of putting such cases in medical record for future reference.

COMMITTEES.

A few of the committees were exceptionally active during this past year more because the Louisiana State Legislature was in session. The Hospital Abuse Committee, by its diligent efforts with its chairman, Dr. A. E. Fossier, has succeeded in having passed the necessary legislation for the curtailment of excessive abuse in our Charity Hospitals. The Committee on State Medicine and Legislation through co-operation with the Louisiana State Board of Medical Examiners and a like committee from the Louisiana State Medical Society has been extremely successful in defeating the proposed acceptance of the chiropractor into the legitimate field of practicing physicians of Louisiana. The president has appointed a special committee for the investigation of Periodic Health Examinations, this committee reporting for the first time tonight.

The Society through its president has appointed ten physicians on the Milk Commission for the past year. The Society has gone on record as favoring the proposed plan of the American Medical Association whereby it becomes a local unit in medical relief in cases of disaster or calamity of any magnitude, this unit to function only until proper government and Red Cross aid becomes available. There has been voted a change in investment of the $30,000.00 Domicile Fund from 4¼% Liberty Bonds to bonds bearing a greater rate of interest. This gives an additional increase for the financings of the future policies of the Society. The Board of Directors has given as a loan to the Charity Hospital Library 500 duplicate books which is an excellent nucleus to this well deserving attempt on the part of the internes of Charity Hospital to have a library of their own.

During this year the following delegates and alternates to the Louisiana State Medical Convention have been elected for a period of two years:

DELEGATES	ALTERNATES
Dr. Emmett L. Irwin	Dr. W. D. Phillips
Dr. Urban Maes	Dr. Lucien LeDoux
Dr. Marcy J. Lyons	Dr. S. Hobson
Dr. L. L. Cazenavette	Dr. C. Grenes Cole
Dr. L. A. Fortier	Dr. Chas. F. Gelbke
Dr. F. J. Chalaron	Dr. A. Jacobs
Dr. J. Birney Guthrie	Dr. Fred L. Fenno
Dr. H. W. Kostmayer	Dr. John Signorelli
Dr. H. Theodore Simon	Dr. Henry Daspit
Dr. Maurice J. Gelpi	Dr. P. Graffagnino
Dr. H. B. Gessner	Dr. J. A. Danna

OFFICE ORGANIZATION.

The work in the office has proceeded in a satisfactory and businesslike manner. I wish to thank Miss Lucille Maier, our assistant secretary-

treasurer, for her faithfulness and promptness in her endeavors to co-operate.

In conclusion I wish to thank the president and each member of the Board of Directors for their hearty co-operation and the general membership for the opportunity they have given me to serve this Society. I again wish to thank them for my re-election to the office of secretary in the coming years and I will endeavor to be conscientious in my efforts to advance organized medicine and the Orleans Parish Medical Society.

Respectfully submitted,

H. THEODORE SIMON, M. D.,
Secretary.

The following is a brief summary of the Annual Receipts and Expenditures of the Orleans Parish Medical Society:

REPORT OF GENERAL FUND, 1926.

Balance on Hand, January 1st, 1926	$1,678.56
Receipts	9,337.99
Expenditures	8,607.58
Actual Book Balance	1,214.56
Total Office Expenditures	119.07
Incidentals	430.17
Total special receipts	90.49
Total special expenditures	3,912.30

Respectfully submitted,

JOHN H. LANFORD, M. D.,
Treasurer.

ANNUAL REPORT OF THE LIBRARIAN FOR YEAR 1926.

During the past year the library has made steady progress and several additions may be noted.

There were 668 books added to the collection, as compared with a total of 530 during the previous year. 238 were received by gift, 35 by subscription, 1 by replacement, 251 by binding, 19 by purchase and 124 from the New Orleans Medical and Surgical Journal. The total accession to December 31, 1926, is 12,238 (last year, 11,570).

The number of bibliographies prepared was 43. During 1925 there were 37, whereas in 1924 there were only 11. A comparison of these figures will readily demonstrate the increase in reference value of the library, as much as four-fold in the past two years. All prepared bibliographies are on file in the library for future reference.

Since our need of new monographs is cared for by the members of the Society reviewing the books that are sent to the New Orleans Medical and Surgical Journal for this purpose, we are enabled to spend more for completion and building up our magazine files. Distinct advance has been made in this direction during the current year. There are now 55 files which are complete from volume 1 to date, and many more which are nearing completion. The total number of current magazines in our files is 150.

EQUIPMENT.

New lights were added in the reading room, one-half of the cost of which was donated by Dr. W. A. Lurie. A desk chair was purchased for the assistant librarian.

The Library Committee held one meeting on July 21, with good attendance and considerable interest. The donors of books in 1926 are as follows:

Dr. John Oechsner, Dr. W. H. Block, Dr. H. W. E. Walther, Dr. C. Jeff Miller, Dr. Allan Eustis, Dr. M. H. McGuire, Dr. Haidee Weeks, Dr. P. B. McCutchon, Medical Library Association, Dr. Walter E. Levy, Dr. H. Dickson Bruns, Dr. W. A. Love, Dr. I. I. Lemann, Dr. W. A. Lurie, Dr. E. D. Martin, Dr. H. J. Otto, Dr. John A. Lanford.

DANIEL N. SILVERMAN, M. D.,
Librarian.

REPORT OF THE PRESIDENT, 1926

Dr. Maurice J. Gelpi

Ladies and Gentlemen:

Before the installation of the incoming president, it is customary to pass in review the principal activities of the Society during the preceding year. So as not to delay the proceedings unduly, however, only the salient features of the last administration will be submitted for your consideration.

From the scientific standpoint, the meetings have been of a high order due to two main factors—first, the unceasing activity of the chairman of the Scientific Essays Committee, Dr. Emmett Irwin, and second, the appearance of an unusual number of prominent essayists from other medical centers outside of our ranks. As was anticipated, the presence of these distinguished visitors proved to be a great stimulus to attendance. For instance, at nine consecutive meetings, there was an average attendance of over one hundred —the maximum being one hundred and seventy-eight and the minimum fifty-one. Also a year ago, a special appeal was made to the teachers to

contribute to the scientific programs. It is most gratifying to report that the teachers responded nobly to this appeal, and their co-operation added greatly to the success of the scientific sessions.

A notable permanent addition to the yearly scientific work has been inaugurated in the form of the Chaille Memorial Oration, recently delivered for the first time by Dr. Allen Whipple of New York. The expense of this annual oration will be defrayed as it was this year by utilizing part of the funds available from the increase in dues.

In reference to the question of the increase in dues, it was a source of considerable gratification to the Chair as well as to the Board to be able to defray from this source, not only the expenditure already indicated, but also to provide more adequately for the upkeep and development of the library. As a result, the financial state of the library has been made more in keeping with its excellent physical condition and high degree of efficiency developed under the management of the librarian, Dr. Silverman, and the assistant librarian, Miss Marshall. Furthermore, the increase in dues has had also a favorable reaction on the already healthy state of the treasury.

As regards the financial condition of the Society, our efficient treasurer, Dr. Lanford, will have more to tell you in his report. Suffice it to record for the present, that the Society has never been in a better condition from the monetary standpoint. This thought brings to mind the question of a permanent domicile.

In this connection, it is worthy of note that the only important administrative measure which failed to pass, was that providing for the purchase of a domicile site for the future erection of a suitable building, including a fireproof library. Discussion of the measure, however, culminated in a very satisfactory solution of the problem, at least for some time in the future. In other words, our main object has been realized through the acceptance by the Society of a definite offer from Tulane University, to house the Society and the library and to provide for a suitable meeting place. This has permitted the necessary reinvestment of the so-called "Domicile Fund," which has been duly authorized by the Society and executed by the proper committee.

The work of all the standing and special committees has been most satisfactory, liberal and unselfish and the Chair feels very grateful to every one of these for their unstinting contribution in time, thought and action. As a matter of fact, whatever constructive work might be credited to this administration should be given almost exclusively to the various committees and to the Board. This is most particularly true of the Hospital Abuse Committee.

As you know, the question of hospital abuse has been a vexing one for many years and as far back as 1915 the subject was greatly agitated. There was even a symposium on the question participated in by various members of the Society at that time. While the subject has always excited the keenest interest, nothing definite has ever been accomplished in the way of solving the difficulty until this year. For the first time, your committee by their persistent and untiring efforts, assisted by members of the State Society and others, succeeded in having the Legislature pass the necessary law for correcting hospital abuse. Too much praise cannot be given the chairman, Dr. Fossier, and the other members composing this most efficient committee. The successful consummation of this arduous labor stands in contrast to the single task of any magnitude, which still remains unfinished.

Reference is made to the revision of the By-Laws. While considerable time was devoted to this work and the entire subject-matter was gone over at least three times, it was concluded that on account of certain unfinished and incomplete minor details, the revision should be turned over to the new Board for completion. In conclusion, the liberty is taken of adding to this heritage for the Board a single suggestion in the form of a recommendation for their consideration next year.

As is generally accepted at the present day, the question of publicity in all its phases is now irrevocably linked with modern medicine. The public is eager for enlightened and correct information on medical matters and the press is equally eager to supply the demand. Everyone grants that both the public and the press are stimulated by a perfectly normal impulse and even the medical profession now admits that for obvious reasons, the public craving should be gratified. So that the necessity of supplying information in regard to public health matters, the urgency of posting the press in regard to the correctness of medical news, the obligation for supervision of material for publication especially when referring to individual members in the profession, the responsibility for the broadcasting of medical material and all other public medical matters depending upon accuracy for their value,—are all loudly calling for the exercise of a distinct duty on the part of this Medical Society.

This duty lies in the assuming of a function not only as public medical advisor, but also as a co-ordinating agent with the public press and

even as a censor of all medical matters intended ultimately for the public. This function could be best performed through the organization of a carefully selected standing committee on publicity. The essential function of this committee would be therefore to preside as both judge and jury, in every case involving anything medical destined for the public. In other words, in all matters pertaining to publicity, the committee should be plenipotentiary. With a little diplomacy and determined effort, co-operation on the part of the public press could be readily won over resulting in the benefit of all concerned. The subject has been discussed a number of times by the Board and was brought up again recently by Dr. Fishbein, Editor of the Journal of the American Medical Association. Dr. Fishbein was keenly interested in the present local condition in this respect, and was informed that while the Society had done nothing definite to meet the situation so far, this recommendation was contemplated.

And now, my friends, it would be very ungrateful of us to dispose of this report, almost our last official act, without a word of special thanks to the Board and to the secretary for their consistent loyalty and assistance. Also, this opportunity cannot be overlooked to thank the entire Society for their universal good nature as well as for their tolerance of us in excitement, and indulgence in trying circumstances. Our efforts have always been to look after your interests and to carry out the will of the majority. If in the quest of these two objects, our main endeavor, we have shown signs of human weakness and perhaps at times exposed ourselves to criticism from certain quarters, at least you have the fullest assurance that our actions have always been guided by the very best intentions and never by sinister motives.

INAUGURAL ADDRESS OF PRESIDENT.

Dr. A. E. Fossier

Honors beget responsibilities, and the conscientious fulfillment of these responsibilities can only be accomplished by endless attention, unswerving devotion and relentless toil.

To be the President of the Orleans Parish Medical Society is a very great honor; to be your representative, my confreres, is a distinction greatly to be coveted, and with pardonable pride and exultation I accept the dignity you have conferred upon me. I also cheerfully accept the responsibilities pertaining to the office, and I sincerely hope, a year hence, when I relinquish the stewardship of this Society to my successor, my humble efforts will have been crowned with your approbation.

After reviewing the discourses of my predecessors on similar occasions, I was bewildered by the great things they had proposed and accomplished. During their respective terms of office questions of momentous importance were rapidly and successfully solved, and the scientific programs reached a pinnacle so high, that it would be extremely difficult even to reach much less to surpass them.

In obedience to a mandate long established by you, I humbly and respectfully submit for your kind consideration and with the hope of your approval, the following recommendations:

One of the many outstanding features which distinguished the past administration was the enactment of a law to curb abuse in our State Charity Hospitals, and the sapping of the State Treasury by individuals who through penuriousness, ignorance or other motives, seek the philanthropy of the State and thereby lower the high standard of these institutions to the detriment of the needy poor. This law serves a great benevolent purpose, because by denying admission to the undeserving we are preventing the overcrowding of these institutions and thereby assuring the indigent sick, the accommodations and attentions that they cannot procure elsewhere. Our Society which fostered and proposed for passage this bill to the legislative assembly must see and must insist that it is not only observed in spirit but it is obeyed to the very letter. It can be stated beyond the possibility of successful contradiction that this law has not only been favorably considered, but has the hearty approval of superintendents, trustees and administrators of Charity Hospitals in this country, and has been acclaimed by many also a model for the drafting of similar measures in other states.

The limiting of the privileges of our Charity Hospitals and clinics to the deserving poor serves to bring to our attention another question of vital importance. The problem of cheaper hospital facilities is everywhere being agitated. The wealthy and indigent enjoy every medical, surgical and therapeutical advantages, but the great middle class who have not sufficient means to pay for the necessary expensive refinement of medical treatment, and who are too proud and self-respecting to accept free service, are penalized for their commendable self-respect and for their determination to pay their own way.

There is a paralellism existing between our great medical teaching institutions and our pay hospitals. The time was in the recent past that a medical college was self-supporting and could ably function from the fees obtained from its students. Today these institutions are all endowed, the tui-

tion fees furnishing but a small proportion of the necessary revenues. It is impossible to bring all hospital facilities within the reach of persons of moderate means, for under present conditions even the best managed institutions show an operating deficit. This condition will become much more acute in the future. The rapid strides in the advancement of science and medicine, and the greater complexity of the diagnostic and therapeutic methods, make the cost of hospitalization ever increasing. The only solution is the endowment of these institutions. There is no field of human endeavor which should be more attractive to our philanthropists, for by alleviating the burden of the high cost of hospitalization they will produce great beneficient results, and will prevent the pauperization of their fellow creatures, and what is still more important, help them to retain their self-respect.

We would indeed be remiss in our obligation to our patients, if this year should come to a close without giving serious consideration to the promotion of Periodic Health Examinations. Longevity is one of the strongest desires of the human heart and the greatest ideal of the true physician. This is not the occasion to dwell upon, nor will the limited time allowed me to address you permit me to enter deeply into the merits of periodic health examinations by the family physician, but I feel that unless the Society fosters and takes an active interest in this cause commercial agencies will supercede the family physician, who rightfully and for the greatest benefit of the public should be the one to render this service. A periodical health examination committee should be immediately appointed in order that deep study be given to this most opportune and important subject.

There has always been a certain amount of dignified reticence on the part of the ethical element of our profession concerning the furnishing of medical information to the press, and for this reason we may be partly responsible for the frequent publications of pseudo-scientific and even misleading and dangerous medical news in our daily journals.

The lay press is the most powerful medium of instruction for the public in health matters; with proper co-operation between the publicist and the physician, real, truthful and most valuable information can be dessimated to the large multitude who read the daily papers. We must do our utmost to secure this co-operation. The public has decided that it wants health talk. It is vitally interested in the prolongation of life, and in the prevention of disease, but the knowledge to be diffused should be accurate, impersonal and free of all tinge of commercialism. This can be only accomplished by a Committee on Press and Publicity which should be a standing committee. This committee should serve as a mediator between the press and the profession, furnish to the press medical matters of interest to the laymen, and at the same time be a censor of fake and unscrupulous medical news. It should also serve to advise the editors concerning items of a professional character. Incidentally, I wish to suggest that the duties of this committee may include the dissemination of health talks to the vast invisible audience by radio broadcasting. The scope of the work of this committee is enormous, and will assure a service of extreme value to the physical welfare of the public.

Whilst the primary object and purpose of the Orleans Parish Medical Society is for the advancement of the science of medicine and surgery, the establishment and maintenance of a medical library and museum for the education and advancement of its members, and the encouragement of scientific and philosophic studies, the consideration of ways and means not only to safeguard but to promote the physical well being of its members should be given due and careful study.

It is the consensus of opinion that contract practice does not work under present conditions, to the best interest of the public and the physician. I respectfully suggest the appointment of a special committee to give careful and deliberate study to this vital question, not with the idea of abolishing same, for in its way it serves a useful purpose, but of regulating this practice, with the object in view of providing for the patients' better medical attention and securing for the physician more equitable remuneration.

In order to encourage a greater attendance at quarterly meetings and to relieve the monotony of tedious routine business transactions, it may be wise to make these meetings more attractive by inviting prominent laymen to speak on live, instructive and interesting subjects.

Many more recommendations could be in order, but I do not wish to burden you any further tonight, as the occasion will present itself during the course of the year to submit them for your consideration.

The excellency of our medical teaching and the wealth of material furnished by our Charity Hospital, and other free clinics, should make this city the mecca of medical research and education, not only for the South, but for the whole United States and likewise for our Latin American neighbors.

The attention of the medical world is riveted on New Orleans. No other city in the union

has a greater claim by cause of its greater opportunities to become a great center of medical education. Great numbers of students of medicine, the country over, are seeking these great advantages offered here, but unfortunately this privilege must be refused them, because of lack of facilities.

New Orleans is on the eve of a medical renaissance, and it is about to reassert its rightful place as the great medical center in this country which it unquestionably held the fifteen years preceding the Civil War.

The Orleans Parish Medical Society should ever keep pace with the march of progress. Unfortunately there has been a growing tendency on the part of the public as well as of some members of this Society to eliminate the physician, because of his profession, from positions of a medico-civic character, or even from the management of institutions purely medical in their scope. We are frequently asked by charitable organizations to do their work and then denied by them our rightful place in their councils. More and more this Society should assert itself as the dominant factor in the health affairs of this city. Its counsel should be sought, and its support solicited by our health organizations on questions vitally important to the physical welfare of this community.

Our civic duty is clearcut and well defined and to the fullest extent of our strength, we must not only resent, but combat, any effort made to curtail our rightful prerogatives.

Again I wish to thank you for your confidence, and for the honor you have conferred upon me.

TRANSACTIONS OF THE ORLEANS PARISH MEDICAL SOCIETY.

February

During the month of February the Board of Directors has held one meeting and the Society one Scientific Meeting, the second meeting being dispensed with on account of confliction with Carnival.

At the meeting of the Board of Directors the proposed Milk Ordinance for the Parish of Orleans as approved by the New Orleans Pure Milk Society, the City and State Boards of Health was endorsed by the Board of Directors endorsement being in the form of a resolution, a copy of which was sent to the Commission Council and the Press.

The $30,000 Domicile Fund is now invested in 1st mortgage bonds bringing in approximately 6% interest.

The following were elected to Membership:

Active Members: Drs. R. R. Gillespy, Mayer Newhauser and J. T. Sanders.

Associate Member: Dr. Walter C. Hava.

Interne Member: Dr. James W. Long.

At the Scientific Meeting held February 14th papers were presented by the following:

"Some Physiological Effects of Carbon Arc Radiation."
By.....Dr. Henry Laurens, Dept. of Physiology Tulane University.

"The Clinical Significance of Electrocardiographic Tracings."
By.....Dr. Geo. R. Herrmann

"Some Phases of Criminal Abortion."
By.....Dr. E. A. Ficklen
Discussed by Dr. E. L. King

"Observations on Various Types of Tinea Trichophytica and other Tineae in New Orleans."
By.....Dr. Aldo Castellani
Discussed by Dr. Ralph Hopkins

The attendance at this meeting was excellent, there being approximately 150 members and guests.

At the executive session of this meeting the Society went on record as favoring a Periodic Health Week to be held in New Orleans some time this spring or summer, and a special committee to carry out the arrangements for this health week was ordered appointed by the President.

The Arrangement Committee for the Louisiana State Medical Society Meeting is as follows:

Dr. Lucien LeDoux, Chairman. Dr. H. Theodore Simon, Ex-Officio, Secretary.

Committee on Finance: Dr. O. C. Cassegrain, Chairman; Dr. Wallace J. Durel, Dr. Elizabeth Bass, Dr. F. J. Chalaron and Dr. A. Jacobs.

Committee on Registration: Dr. Shirley C. Lyons, Chairman; Dr. J. J. Irwin, Dr. Kotz Allen, Dr. H. R. Unsworth and Dr. Monte Meyer.

Committee on Booths: Dr. Marcy J. Lyons, Chairman; Dr. A. Menendez, Dr. Cosmo Tardo, Dr. Daniel J. Murphy and Dr. T. A. Maxwell.

Committee on Signs and Decorations: Dr. T. F. Kirn, Chairman; Dr. F. R. Gomila, Dr. Emmett L. Irwin, Dr. Fred L. Fenno and Dr. J. L. Locascio.

Committee on Ladies' Entertainment: To be appointed.

Committee on Badges: Dr. W. P. Gardiner, Chairman; Dr. P. L. Thibaut, Dr. Daniel N. Silverman, Dr. Frank Chetta and Dr. Edmond Souchon, II.

Committee on Scientific Exhibits: Dr. R. H. Potts, Chairman; Dr. Jules Dupuy, Dr. John F. Dicks, Dr. J. D. Rives and Dr. Geo. R. Herrmann.

Committee on Entertainment: Dr. R. J. Maingegra, Jr., Chairman; Dr. W. A. Reed, Dr. J. J. Wymer, Dr. H. E. Bernadas and Dr. Andrew Friedrichs.

Committee on Publicity: Dr. E. L. Leckert, Chairman; Dr. Homer Dupuy, Dr. H. E. Bernadas, Dr. C. V. Unsworth and Dr. Urban Maes.

Committee on Hotels: Dr. J. C. Menendez, Chairman; Dr. Harold Bloom, Dr. Joseph A. Hountha, Dr. Walter E. Levy and Dr. J. J. Ryan.

Committee on Golf: Dr. Val H. Fuchs, Chairman; Dr. F. Temple Brown, Dr. W. W. Leake, Dr. Lucien Fortier and Dr. P. C. DeVerges.

Committee on Convention Clinics: Dr. Isidore Cohn, Chairman; Dr. Jerome Landry, Charity Hospital; Dr. I. I. Lemann, Touro Infirmary; Dr. Maurice J. Gelpi, Hotel Dieu; Dr. A. O. Hoefeld, Presbyterian Hospital; Dr. T. B. Sellers, Baptist Hospital; Dr. F. E. LeJeune, Eye, Ear, Nose and Throat Hospital; Dr. O. C. Cassegrain, French Hospital.

REPORT OF TREASURER.

January

Actual Book Balance 12/30/26	$1,214.56
Receipts during January	$2,813.32
	$4,027.88
Expenditures	$1,199.04
Actual Book Balance	$2,828.84
Outstanding checks	$ 815.00
Bank Balance 1/31/27	$3,643.84

REPORT OF LIBRARIAN.

January

Six biliographies have been prepared during the month on subjects as follows:

Diabetic Coma (1922-26)

Diabetic Gangrene (1922-26)

Sprengel's Deformity (1916-date)

Choice of an Anesthetic (1922-date)

Dilatation of Duodenum

Epigastric Hernia (1922-26)

These lists have been placed on file for the use of the membership. The referenc work is always heavy at this season of the year.

Forty books have been added to the library. Of these twenty-one were received by subscription, ten by gift and nine from the New Orleans Medical and Surgical Journal. Gifts have been received from Dr. H. B. Gessner, Dr. W. A. Lurie, Dr. Haidee Weeks and the Medical Library Association.

The first allotment of the books of the Interns' Library at Charity Hospital, was sent over, 128 volumes. These are duly listed and receipted by Dr. Leake, according to the written agreement of the conditions under which the books are loaned. This sorting and listing will proceed from now on, as rapidly as the reference calls in the Library permit, since the additional space in our growing collection is needed very badly. It is hoped that approval will be given as soon as possible for the additional equipment recommended in the Librarian's Report, as it will take sixty days to fill the order.

Respectfully submitted,

H. THEODORE SIMON, M. D.,
Secretary.

TRANSACTIONS OF THE JOINT CLINICAL MEETING OF THE ORLEANS PARISH MEDICAL SOCIETY WITH THE CHARITY HOSPITAL STAFF HELD NOVEMBER 8th, 1926.

PRESENTATION OF CASE OF MARCOLEPSY.

Dr. W. J. Otis

This is a case of a child twelve years of age, the eighth born of twelve children. The father, who gave the history, stated that there was no miscarriage; all the other children are normal. This is the patient's third admittance to the hospital. The first admittance she was referred by the attending physician as possibly a case of parasitic infection or overwhelming toxic condition by parasites. The next admission was for appendicitis, for which an operation was performed. Early in

April the child was noticed to drop off to sleep for no apparent cause. At school she would put her head on her shoulder, be awakened, only to again put her head on her shoulder and fall asleep. She was sent home and brought into the hospital and treated for parasites. I do not think any were found.

The second entry was in April, 1926. Her father says that she was brought in this somnolent state with a possibly history of appendicitis attached. The child was admitted to a surgical service and the surgical record states that an appendectomy was performed, a diseased appendix found and removed. The child remained in the sleepy state several days after the operation, recovering sufficiently to go home and to resume her studies.

On the 29th of last month she was seen to fall asleep again in the school room. She was awakened and shakened by the teacher; she was then clear for a little while but later returned to her sleeping. When readmitted here she was in this sleepy condition and her body was stiff and rigid. The admitting diagnosis was dementia præcox. The data given at this time was that Friday, while at school she slept through the entire noon hours, but seemed perfectly normal when she returned home. Saturday morning at 9:30, while she was washing, she fell. Her mother ran to her assistance; she was limp, but after being made to inhale some ammonia she seemed much better. Monday patient was well. Tuesday, jaws were locked and her family physician recommended that she be brought to the hospital. She could not speak, only nod her head in answer to questions.

At a previous admission a lumbar puncture was performed, which was negative in one exception, that the Wassermann of the fluid was not taken, neither was the gold cell reaction made, but the globulin was normal and cell count likewise. She remained in this sleepy condition until Friday, about one o'clock, and when she awoke there was no clouding and no evidence of having just come out of one of these attacks. Reflexes are present to a marked degree. Romberg negative. No ocular involvement. No vomiting. Facial expression that of one in sleep. No cyanosis—when lips and nose were pressed she colored up a little; eyes opened up perfectly normal, to close again. Friday we did some laboratory work to clear up the condition. Sunday nothing was done. This morning, after awakening, the work was resumed. I examined her and an x-ray picture was taken, the report of which I have not yet received. I happened to come in about 12:30, just as the child was being brought from the x-ray room, and she seemed very somnolent, so sleepy she could not speak, but nodded her head when asked a question. I asked her if she had any pain and she shook her head. She was then going into one of those somnolent spells. I told the nurse to put her between blankets and feed her (nasal tube) every hour or two. Tonight she is very much brighter. After having been fed this afternoon she did not look so sleepy. The nurse said that at one time she became semi-rigid, but after this condition had passed off she sat up while her bath robe was put on. (Here Dr. Otis asked child if she went to school and what grade she was in. She answered that she was in the fifth grade-A. The history has it seventh grade-A.)

With the history as such, in the absence of epileptic phenomena, which I do not think has entered this case, and which her parents deny, I believe it would be well to rule out epilepsy. The froth which the mother described as coming out of the child's mouth when she went to her assistance was nothing more possibly than the drooling of saliva after sleep took possession of her. Hysteria also has no place in her history. Her people are a wage earning family; the children are all normal and this child is the father's favorite. The report of the teacher at school is satisfactory; no trauma, no fright, she has not been punished, nor was she threatened with punishment. She has not encephalitis. She has had a few fluctuating points of temperature, which do not amount to anything. Gellineau, in 1880, gave the name narcolepsy to a nervous manifestation, a paroxymal stage in which people fell asleep during the day time for no apparent cause. Congenital narcolepsy occurs in children about puberty and remains for a period. So far there has been no mental retrogression. She goes back to school and takes up her studies until she becomes sick again. We consider fatigue in this case, systemic fatigue, possibly malnutrition (she is a social service case), ocular fatigue. The fatigue described by Friedmann in which patient has confused, delusional states, rises of temperature, vivid dreams, day nightmares do not fit in here as this child has nothing of the sort; she is very quiet and very lethargic. Nor is this dementia præcox occurring at about the adolescent stage. She came out of her lethargy this morning very clear, answered all questions, was fully prepared to go through all the examinations, went to the ophthalmologist, "media and fundi negative"; had x-ray picture taken. These reports have not been received as yet. Urinalysis showed a trace of indican and a trace of sugar. Blood picture: Hmgb. 85%; r. b. c. 5,200,00, w. b. c. 11,500. Pathology: None found except large red

cells (non nucleated). Feces: negative for parasites or larvae of any kind.

This is not a usual disease, rather unusual. I have seen a similar case in the Service diagnosed as mental fatigue, a condition which sometimes lasts for several years. There is no dementia attached and no change of personality. The treatment is supportive and stimulative. Other examinations will be made to show how the blood is handling the CO_2 content and other things. We are just beginning to work on the child.

Q. Dr. Brennan: I would like to know if tumor of the hypophysis has been considered, and also any reference to the c. metabolism in this case?

Q. Dr. L. Letten: Would you consider this a case of intermittent encephalitis?

Q. Dr. L. L. Cazenavette: What was the condition of the child's eyelids during sleep?

Q. Dr. Kostmayer: What is the prognosis in these cases?

Dr. L. L. Cazenavette: Dr. Otis has certainly presented a very interesting case. I would like to ask him whether this little girl presents the same state of sleepiness in the day as at night and whether the condition lasts the whole twenty-four hours, or part of the day or night?

I have seen two cases where this somnolent state took place in the day. As soon as night came on these patients were wide awake. It is rather an unusual condition because patients so afflicted can easily stay awake the whole night, but with the approach of morning they fall asleep and sleep profoundly nearly all day. I know of an instance where a man lost his job because he could never get up sufficiently early to get to work on time.

I would also like to ask Dr. Otis if he is able to give a prognosis in this case?

Dr. Otis: In answer to Dr. Brennan's question as regards the pituitary condition, the roentgen examination was for this and I am waiting on the report. However the child did not give any symptoms of pituitary disturbance at any time during her illness, no headaches, no pains over her eyes, no binding around the head, no heminaposias, no over or under development of the child as such. In answering Dr. Cazenavette: The child's eyes were closed at night as well as during the day. I did not ask the nurse to find out whether there was any difference in her facial expression, or her respiration or breathing during the night, as well as during the day time, but there was no apopletic condition, no cyanosis, no tremors, just a semi-rigid condition with confusional and mental appearance until she came out of it.

In answering Dr. Kostmayer, with reference to the prognosis, in cases of onset at adolescence stage they go on until about twenty or twenty-one and recover. This child has not menstruated as yet. In some instances this condition if continuous predisposes to N. P. disorders later in life. In answering Dr. Letter as regards intermittent encephalitis, I do not think the history or progress of symptoms are of intermittent encephalitis. The fact that she deliberately comes out of these spells without any serious aftermaths rules out this condition.

Ward 302. Neuro-Psychiatric Service No. 2.

PRESENTATION OF TWO CASES OF XANTHOMA.

Dr. R. Hopkins

Drs. Jones, Guthrie and I have for presentation two cases of xanthoma, the first a common form, the second a rare and unusual type.

In this first case, the usual type of xanthoma with which I am sure you are all familiar, the growth occurs almost always on the eyelids and is characterized by the visible, the almost conspicuous yellow of the lesion. It is quite common and in no way interferes with the well-being of the patient.

The second case is the type of xanthoma which occurs in diabetes, a condition which is extremely interesting, a disease which is extremely rare. Those of you who are sitting near can probably see the color in these lesions, the same color as on the eyelids in the common form of the disease. Very curiously, this xanthoma of the diabetic hardly if ever occurs on the eyelids, but it is scattered rather generally over the entire body. I do not know how many lesions this boy has, but believe it is up in the thousands. The first impression one would get by looking at the lesions on the back and side is that it is a mild case of variola or a severe case of chicken pox. This is characteristic of the disease—inflammatory papules, a little red with the central yellow discoloration. With reference to the diagnosis: The individual lesions, except for the yellow color, are almost identical with those of molluscum contagiosum: the differentiation, however, can be made by the great number of the lesions and the sudden occurrence of the disease.

I hope Dr. Guthrie, whose patient he has been, will discuss the diabetic phase of this curious skin

condition. I think Dr. Jones will have something of interest to tell us about the condition of the boy's blood. The serology is extremely interesting.

DISCUSSION.

Dr. J. Birney Guthrie: This little fellow has been under my care for about two years at the Clinic at Touro. We have been watching him and have seen a rather interesting condition varying from the amount of insulin, which has been given 15 to 20 units t.i.d., 30 units t.i.d., and there was a time when we had to give him as much as 100 units in one day. We also had to take him to Touro so that he could not get food on the outside. He has not grown and his weight has increased slightly in the two years.

For a while he was thought to have a pancreatic lesion. There was at one time a decided prominence of the abdomen and I think I made out some ascites at the time of his admission a year and a half ago. His mother keeps a candy store and it has been too much for this youth. Twice he has been on the verge of diabetic coma and I have seen him where you could smell the acetone fifteen feet away in a closed room. The lack of discretion would cause an increase in the blood fat. We have had some investigations made which give us a rather higher figure than the range of normal. The lesion was unknown to anyone excepting his family. The diagnosis of xanthoma is beyond question and we had to get the whole faculty to arrive at it. In my previous experience with diabetes I have not seen anything like this picture; it surpasses anything in extent I have seen in a diabetic. The little fellow has had a standard diet; it is easy to make up, all prepared on a little card and easy to get it across to anybody. It is one of Joslin's formulas, which has proved of considerable use: carbohydrates 52, proteins 32 and fat 66. The protein is a little low. Today he has had that diet and thirty units of insulin t.i.d Just before this meeting he had a slight insulin reaction. The plan will be to keep him on the verge of that; keep him on the lowest blood sugar. He has improved considerably and the lesions are absorbing rapidly under that plan. It seems an enormous dose of insulin to give a boy of this size; yet we get only a slight reaction on 90 units of insulin. We will probably have to reduce the dose. The probabilities are that he will improve and we will be able to calibrate. Thus far we have been unable to do it on account of the varying amounts of carbohydrates the boy has been having. He has cheated consistently and if we can get him to where he will take about the same number of carbohydrates we will have an approximation at standardization. The thing about him is he is a growing child and we are looking at him with a great deal of interest in the hope of maintaining his growth while continuing the insulin treatment on a standard basis.

Dr. P. H. Jones: Dr. Hopkins wants me to say something about the character of the serum; it was about the color of milk, had a yellow tint and was as thick as fat.

Of two Wassermann reactions, one was anticomplementary, the other negative; the negative Wassermann followed after he had been on a larger dose of insulin, which would probably have some effect on the amount of fat in the serum. The blood cholesterol report that we had, indicated a rather high normal and it has appeared that physiological chemists regard cholesterol as an index of the amount of fat in the serum. This patient came very near being sent to the Rampart Street Isolation Hospital. The appearance of the lesion stimulated small pox to such an extent that when the patient gave the history of having the eruption for three weeks we frankly discounted his statement to three days. But he was lucky enough not to have lesions on the face, so we were sufficiently stimulated to call in counsel and arrive at a more convenient and correct diagnosis.

Dr. F. M. Johns: I have seen several of these very severe cases of diabetes and I think I have seen one case like the one Dr. Jones described—in fact, I was so worked up over it that I went to Dr. Joslyn for enlightenment. He explained it so easily and simply that I thought it would not be remiss to repeat his explanation: "Fats only burn in carbohydrate fire and if your carbohydrate fire is at zero there can be no proper oxidation of fat, hence a residual of fat in blood. The two must oxidide together."

Dr. R. Hopkins (closing): Answer to Dr. Danna's question:

The diabetic lesions are far too numerous for the employment of the usual local therapeutic agents: this child has several thousand. The lesions are essentially benign tumors some of which are undergoing degeneration. The only local treatment in the cases of the usual type which occurs on the eyelids is destruction of the tumor mass; using any of the various methods in common use: the electric cautery, electric needle, surgical excision, etc. There is nothing that we know will create absorption of the tumor mass on the eyelids, it must be destroyed. The lesions of the diabetic type on the contrary usually disappear under treatment of the diabetes.

PRESENTATION OF THREE CASES OF DIABETES MELLITUS.

Dr. J. Birney Guthrie

My excuse for the three-fold presentation tonight is that diabetic patients are all different and very nearly all show something of peculiar interest.

Case 1. This patient is perfectly able to walk around and perform any of the ordinary tasks assigned to her. She is in the ward now for her education. She has not much intelligence, but even with this low grade mentality has always made a living. She lives in the country and when admitted to the hospital on the fifteenth of October was in a diabetic coma, not complete, but in a semi-comatose state, breath reeking with acetone, and presenting all the symptoms typical of this condition. Blood sugar 500 mg. per 100 c.c. Sugar and acetone in the urine, but the quantity of sugar was not estimated. She was put to bed, kept warm and within 48 hours given 200 units of insulin without glucose. The other treatment was fluids, normal saline intravenously and by a Murphy drip. Blood sugar at 500 does need any glucose and it seems not only a foolish but a hazardous thing further to burden a patient with a product which is acting as a poison. I cannot see (with a blood stream showing 500 mg. of sugar per 100 c.c., an excess, and very marked excess of normal) the necessity of unnecessarily prolonging that tissue bath of glucose by introducing further glucose into the blood stream. She came out nicely at the end of twelve hours, breathing was better, and after forty-eight hours woke up feeling "fine." The following day she had a slight reaction, blood sugar down to 148, second day 190. During the first 24 hours 100 units of insulin, the second 24 hours another 100, then after 48 hours 65 units of insulin. The third day there was a slight reaction and the day following a slight reaction of hypoglycemia.

On the third day she was given a diet of 14 carbohydrates, 17 proteins and fat 34. Insulin 65 units. On the fourth day we established a regime of diet for this woman, Joslin's maintenance diet No. 5, C. 52, P. 32, F. 66, which is our routine dietary, a little low in protein perhaps but on the whole very satisfactory and which has not been changed up to the present time. Since the 18th of October there has been no change in either the diet or insulin dosage: carbohydrates 52, proteins 32, fats 66; insulin 65 units.

Her appearance is that of the average woman of her age, she feels stronger and better than in some months previous to admission and she can go on indefinitely in this way. There was no trouble in handling this patient, she has taken the 65 units of insulin and adhered to the diet. Before discharge we will probably raise the protein allowance 10 or 15 grams with a small addition of insulin.

Case 2. This patient is on the same diet exactly. She has high blood pressure, arteriosclerosis, and gives a history of ulcer, furuncolosis and weakness. She is just an old woman with a chronic diabetes, no immediate menace to her, except as the months go on her condition is one of slow retrogression as a result of hyperglycemia and low grade sepsis.

Although on this maintenance diet (Joslin's No. 5) and 30 units of insulin t.i.d., her blood sugar has continued to fluctuate up and down, always higher on Monday and dropping during the week. An interesting feature of this case is that we accomplished a very considerable drop in her blood sugar by showing her a case of moist gangrene, a horrible stinking case, explaining that this was the result of neglect to carry out the directions that had been given. Now she has seen the light and she stops taking extra food. Today, Monday, her blood sugar is 86. The Sunday visitors may have brought her candy, but she did not eat it.

Case 3. This patient represents a different type, one of a series of cases I have had, most of which have not been able to get the best in the way of treatment. She came in with multiple abscesses, all set for a very severe septic battle with the infecting organisms. On her buttock she had an abscess almost as big as my hand and one of my surgical friends advised keeping her in the medical service. So we handled it there upstairs and evacuation of the abscess was done in a medical service. The point to be emphasized (and the reason why I brought this woman here tonight) is that in handling a medicosurgical case, perfect accord must exist with regard to the treatment. It is most difficult to effect a liaison between the internist and the surgeon. It is not a question of personality. It is a case of getting together on the management.

We gave this patient varying doses of insulin, gradually increasing the dose and she suffered several severe reactions. As regards the so-called insulin shock, the more I see of these cases, the more I believe there is something analogous to living in a perverted atmosphere—the cells become accustomed to living in a perverted state and any sudden change to normal sugar levels is associated with a certain amount of shock. As we withdraw the sugar from the blood stream we have the shock.

We have to go carefully with this patient and have succeeded in reducing the sugar from 350

mg. per 100 c.c. to 172. She came in about the middle of October and we have only been able to get her down to 172, but we have to go on. Her wounds are healing fast and at that rate she is overcoming this sepsis. I do not know whether it would interest you to see that abscess of the buttock. The surgeons are laughing at my exhibiting a surgical case.

This is a case where insulin does not work with its usual effectiveness. One must forget the amount one is using and regulate the dosage to accomplish a reduction of the blood sugar. In this case, we must go carefully to avoid a case of insulin coma. The method of procedure is to get slight reactions from time to time. I believe in a couple of weeks we will be able to show this woman with a practically normal blood sugar.

PRESENTATION, BY X-RAY AND SPECIMEN, OF A CASE OF ANEURISM OF THE ASCENDING AORTA.

Dr. A. E. Fossier

Demonstration of Specimen by Dr. Gondolf.

When we opened up the chest we found the heart with this aneurismal sac and the right lung bound together. The right lung was bound by dense fibrinous pleurisy so that the parietal and visceral pleura were bound together, absolutely obliterating the pleural cavity. I took the whole thing out en masse; this specimen is all that we removed. The left lung showed a few fibrous adhesions and emphysema. The liver and spleen showed marked passive congestion.

This aneurism is a tremendous aneurismal dilatation of the entire ascending aorta; the arch is in pretty good shape—no dilatation present. As stated, the aneurism starts at the aortic ring. You can see the valve coming right out into the sac and you can get a good view of the vessels as they come off the arch. It is a pretty specimen. There is a similarity in the picture presented to those cases which have been reported as aneurism of the left auricle, the lung acting as a protection to the aneurism. In this particular case it does the same thing. The sac extends to the right until you have barely one-half inch of lung tissue and pleura, so that it gave very much the same impression of the cases that had been reported of aneurism of the left auricle.

A PROBABLE CURE EFFECTED IN PRIMARY SARCOMA OF THE SPINE WITH X-RAY AND COLEY'S TOXIN.

Dr. H. Theodore Simon

This is a case of primary sarcoma of the cervical spine. I have shown this little girl before the Hotel Dieu Staff on several occasions, following up the case as we progressed, arriving finally at the stage where we believe a probable cure has been effected. Covering all the available literature on the subject, I find that there are only about sixteen cases reported of Primary Sarcoma of the Spine.

This child came to our attention about eleven months ago. She began to have symptoms two months prior, just a crick in the neck, later developing complete paralysis. The case at first was diagnosed incorrectly by us as tuberculosis, with this exception: the deformity present was so slight, from a clinical examination, and the paralysis so marked, that it looked as if we were dealing with something other than tuberculosis. In following the case further we found a tumor instead of tuberculosis.

(Roentgenograms, taken before and during treatment, were here shown by Dr. Simon.)

First Plate: Shows complete absorption of spinous process, also marked absorption of the right transverse process and the right lateral portion of the body of the 3rd cervical vertebra.

Second Plate: A roentgenographic study while under treatment.

At first we considered it a practically hopeless condition but gave deep X-Ray therapy and Coley's toxin. She received three courses of deep X-Ray therapy, and daily doses of Coley's toxin until we have gotten to where we consider the condition dormant.

The plates now indicate an ossification of this tumor mass. In the beginning the child's improvement was slow, but she gradually regained control of all the muscles until complete restoration of normal function. The only abnormality is a slight exaggeration of the knee jerks. In the first stage there was complete paralysis, marked perversion of sensation, and the patient was unable to move even a finger or toe. It was at this time that Dr. Otis saw her.

Third Plate: Here are two views of the mass, one a lateral view, showing a very dim outline, the other a denser outline as the condition improved. As the treatment continued and we thought we were getting improvement, the outline became more dense.

Coley reports such a case in 1901, in which Coley's toxin alone was used. Most of the reported cases have died and were autopsied.

I presented this case on account of the rarity of the condition and the remarkable improvement. She walks and gets around quite actively

(demonstrated by patient walking across the room). There is no destruction in the neck, only a small mass can be felt, which is disappearing gradually.

DISCUSSION.

Dr. C. F. Gelbke: I saw this young lady early in September, 1925, and she presented a mass that looked typically tubercular. The mass was particularly in the soft part of the neck; did not complain of pain. The X-Ray came back as "a tubercular condition of the vertebrae." I applied a plaster collar and she wore it with apparent comfort and relief, but when I left she was taken with severe pain and the collar was removed. She presented a typical case of tuberculosis of the cervical glands involving the soft parts of the neck.

Dr. W. J. Otis: I saw this case shortly after Dr. Simon and at that time she gave all the symptoms and signs of compression more than a destruction; there were hyper-exaggerated K. J.'s and A. J.'s and marked perversion of sensation, to the tuning fork, i. e., on test there was a burning instead of vibration. Heat and cold tests were dismissed, there was cold and clamminess about her body, her facial expression was cachetic and she was practically helpless. I would insist on her doing things, but she could not. I found no reaction of degeneration as such and there was evidently none, as you saw her walk around tonight. The symptoms are entirely compressive.

This case is a splendid illustration of a beneficial result obtained through the prompt and early treatment of a spinal growth, by deep penetration over a wide area without delay.

Dr. J. A. Danna: I saw this little girl, not as a patient, but having to go in the ward every day, and remember her as she first appeared. The contrast is so marked I cannot help but comment on it. She lay with her limbs rigid and could move a little bit to one side. The only thing she could do really well was smile—this she still does. From this state she has gradually improved to the condition in which you see her.

We should never consider a case of malignancy beyond hope until the patient fails absolutely to respond to any treatment. Ordinarily you see a case of this type, a diagnosis is arrived at and you say: What can I do here? But persistence in treatment will every once in a while give you a result like the one before you.

I congratulate Dr. Simon on his persistence in carrying out both X-Ray and Coley's toxin to the point of getting results.

Dr. H. T. Simon (closing): I have nothing further to add except to corroborate Dr. Gelbke's findings, an indurated mass in the neck and, aside from the marked paralysis, indicative of tuberculosis. If this case had been the ordinary type of paralysis, we probably would have gone on and treated the case as tuberculosis.

A QUICK AND EFFICACIOUS TECHNIC FOR THE RADICAL EXCISION OF VARICOSE VEINS.

Dr. J. A. Danna

In showing you this patient on whom I have done a varicose vein operation, I wish to make a plea for radical dissection in these cases. The objection to a radical dissection of a bunch of varicose veins is that it takes a very long time, is a very big operation, etc. The method employed in this case saves a great deal of time and makes it quicker than some other procedures.

This patient gives a history of a similar condition of the left leg for which a Schede operation was performed August, 1918. The operator must have cut the veins, but examination showed that, in spite of that fact, they had reproduced across the gap and the varicosities were almost as pronounced on the left side as on the right.

Procedure: A constrictor was first applied to the thigh so as to compress the veins, not the arteries. As the veins stood out prominently they were outlined. (You see the length of this incision, the dressings have not been touched since the operation; nor will they be disturbed again until the sutures are removed). After outlining the veins the constrictor was removed, the foot raised and limb emptied of blood. The tourniquet was reapplied to arrest the arterial flow, the limb sterilized and the operation proceeded with. We started above and continued right straight on down, dissecting the main trunk as we went along and following the main branches as far as we could. In this case we had very few large trunks. We outlined and removed two areas in each of which was a large bunch of varices from which he probably suffered. Even with the constrictor on there was some ooze, and every time we cut a vein we clamped it to keep the field clear—you cannot work as fast in a bloody field.

Having finished dissection, the wound edges were approximated with a button-hole linen stitch, removing the clamps as they were reached by the suture. The operation completed, we put on this dressing, supplementing it with a thin layer of cotton batting and then a roller bandage. The constrictor was on all the while.

Excepting the ligation of upper and lower ends of vein where excised, not a single ligature was used. You can save time by not catching the vessels, but as there is always blood in the veins despite the constrictor, it gives you a blurred field. Better then to catch the vessels—you see better, work faster and in this way are more than compensated for the slight loss of time through applying forceps to control oozing. But no ligatures are used.

I show this case for two reasons:

The First: To advocate a clean dissection as against all other operations. I have done practically all the others, including the Schede, which method I practiced consistently for some time, and obtained some excellent results. Later, results not so good made me quit using it.

The Second: It has this advantage. Any operation where you make transverse cuts interferes with the lymph flow. Of course if you have a short incision you do not do very much harm. This method interferes less with the lymph flow than any other operation.

This patient was operated two days ago on Saturday, November 6th. Ten days after operation he will be able to get up and walk around. I do not think he could do that if any other type of operation had been performed.

INFECTION OF INJURED TOE, THE RESULT OF DRESSING A SYPHILITIC LESION FIRST AND THE TOE AFTERWARDS.

Drs. Reed and Wolf

This is a case under anti-luetic treatment, who gives a history of having a sore develop on the penis, which rapidly grew, attaining a considerable size by the time he was admitted to the hospital for treatment. Four weeks after the sore appeared he had an accident, injuring his big toe, and in attempting to dress it, after having dressed his penis, the toe became infected, so when he first came under our observation we thought he had a granuloma of both the penis and the toe. The sore on the penis was about the size of a dollar, indurated, surface glistening with a tendency to bleed and the inguinal glands were not enlarged. The lesion was scraped, and smears and sections taken for granuloma—no Donovan bodies were found. The Wassermann was strongly positive, and he has since that time been under anti-leutic treatment. The lesion on the penis is rapidly getting better and the one on the toe is also getting better.

Evidently this is a mixed chancroidal and leutic infection, the lesion first developing in the usual place on the penis with resulting infection of the toe by handling the penis first and the toe afterwards. He has had two doses of salvarsan. The penile sore is now about half as large as at the time of admission and the toe also is getting better; both lesions are gradually disappearing. No skin lesions were present, and there was nothing to indicate a syphilitic infection except the primary lesion of the penis and associate lesion on the toe.

DISCUSSION.

Dr. P. Gelpi: Q. I would like to ask Dr. Reed if there was much induration of these sores?

A. Yes.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

SPECIAL ANNOUNCEMENT FOR THE ANNUAL MEETING OF THE LOUISIANA STATE MEDICAL SOCIETY.

New Orleans, April 26, 27 and 28; House of Delegates, April 25.

The Orleans Parish Medical Society, through its Arrangement Committee, extends a most cordial invitation to all members of the Louisiana State Medical Society to be their guests at the approaching Annual Meeting. As hosts to the Louisiana State Medical Society, the physicians of Orleans Parish looks forward with pleasure to again renewing friendships with their out of town confreres.

In keeping with the steady progress of the State Society, our committee is planning to offer to the State Society the best program ever presented at an Annual Meeting. We anticipate with increased interest in Scientific Work and added strength of the State Society, the largest attendance in our history. Let us call your attention to a few salient features of the program.

The headquarters will be at the Roosevelt Hotel, which you know is the last word in accommodation and hotel construction. The President's Reception on April 26th at 8:00 p. m. will be in the Tip-Top Room of the Roosevelt, as also the Annual Dinner on the evening of April 27th.

The Chairman of the respective scientific sections have not only been fortunate in having on their program some of the best physicians and surgeons of the State, but several of the most prominent medical men in this country. The papers offered by these noted physicians will repay you for your trip to New Orleans.

Under the able supervision of Dr. Isidore Cohn, hospital clinics will be held on Monday, and at some other date which may be found available. Though it is but two years since the Society met in New Orleans, our surgical and medical opportunities have been considerably enhanced by the addition of several large modern hospitals. The meeting will offer an opportunity for a thorough inspection of these modern institutions, in addition to enjoying the unusual facilities of the older ones.

Furthermore, to add interest to the progress of science in our medical circles, an unusual Scientific Exhibit is being arranged under the careful guidance of Dr. R. H. Potts. From the activity displayed by him and the Committee, you may rest assured that you will have the opportunity of visiting one of the most complete and practical scientific exhibits. This will serve for your enlightenment during the spare moments when one is not engaged with the regular scientific program.

The plans of the social entertainment are in keeping with the intensification of the scientific opportunities. Luncheon on Monday at the French Hospital; Tuesday at the Hotel Dieu; Wednesday, Baptist Hospital, and Thursday, the last day of the meeting, will find us the guests of the School of Medicine of Tulane University. On Wednesday night the Annual Dinner will be given, which I am sure will furnish to each and every one much pleasure and entertainment.

While there is ample opportunity of keeping every one busy with the Scientific Program, those desirous of healthful diversion will find it in the Golf Tournament being arranged for those who are anxious to display their ability in this famous sport. Under the guidance of Dr. Val Fuchs, the details of same are being rapidly completed. Beautiful cups, prizes and other awards will be in store for the fortunate golfer.

After one indulges in this intensive scientific program, and enjoys the social entertainment, which is bound to be destructive to our reserve nervous energy, there is being planned a Post-Convention Cruise to Havana and LaCeiba. This is a beautiful trip offered by the Standard Fruit and Steamship Company, at such reasonable rates that I feel certain quite a number of our physicians will be desirous of availing themselves of this unusual opportunity. More specific details concerning this cruise will be carried in the Journal.

While the above recitation of the plans for Annual Meeting is for the purpose of entertaining the physicians, the lady guests may be assured that unusual plans will be developed for the entertainment of all those who honor us with their presence. The details of this feature of entertainment will be carried in the Journal and official program.

We would ask that you make your plans early to be with us on the above occasion. We are looking forward with the greatest pleasure to having the State Society with us again.

Let only the unusual interfere with your attendance.

E. L. Leckert, M. D.,
Chairman, Committee on Publicity.

SPECIAL NOTICE.

Special attention is directed to a Post-Convention Cruise offered by the Standard Fruit and Steamship Company to Havana and LaCeiba. Special rates have been made for this occasion, $110 to LaCeiba, and $75 to Havana.

Other than serving as a recreation, as a scenic viewpoint there are many attractions in the form of beautiful hospitals and medical centers.

Boats will leave New Orleans on Saturday following the meeting, April 30th. Those desirous of availing themselves of this trip will communicate with the Secretary-Treasurer, 1551 Canal Street, or directly to the Standard Fruit and Steamship Company, Union Indemnity Building, New Orleans, La.

CONVENTION CLINICS.

For the first day of the meeting of the State Medical Society, coincident with the meeting of the House of Delegates, the Clinic Arrangement Committee is making an effort to prepare surgical clinics, bedside diagnostic conferences, and clinic lectures. Each of the hospitals has been asked to prepare a program. From the replies received the prospective hospital programs should prove of great interest. It is also hoped that the various laboratory departments will be able to give demonstrations on interesting topics, such as recent electro-cardiographic studies, and important observations from the Department of Physiology, and other of the fundamental scientific departments of the university.

It is hoped that the members of the Society, other than the members of the House of Delegates, will avail themselves of the clinic program which is being arranged for their entertainment.

Announcement in next month's Journal, relative to the exact program, will be made. Watch for the announcement.

ISIDORE COHN,
Chairman, Clinic Arrangements Committee.

ST. MARY PARISH MEDICAL SOCIETY.

The St. Mary Parish Medical Society has elected their 1927 officers as follows:

President—Dr. L. B. Crawford, Patterson, La.

Vice-President—Dr. C. M. Horton, Franklin, La.

Secretary-Treasurer—Dr. A. C. Kappel, Franklin, La.

Delegate—Dr. C. C. DeGravelles, Morgan City, La.

Alternate—Dr. Homer Gates, Franklin, La.

LaSALLE PARISH MEDICAL SOCIETY.

The LaSalle Parish Medical Society (Physicians Improvement and Protective Association) met at Olla, Standard High School Building, January 6th, 2:00 P. M.

Called to order by Dr. Thomas M. Butler, President. Excellent attendance of both active, honorary members and visiting physicians.

Annual election of officers: Dr. Thomas M. Butler, of Trout, was re-elected President; Dr. J. P. Durham, Trout, Vice-President; Dr. W. V. Taylor, Olla, was re-elected Secretary-Treasurer. The President-Elect appointed the board of censors as follows: Dr. R. B. Taylor, Kelly; Dr. O. F. Matthews, Urania; Dr. G. P. Smith, Zenoria; Dr. W. V. Taylor re-elected delegate and Dr. H. S. Holloman, Standard, Alternate, to the Louisiana State Medical Society.

The Scientific Program was a lecture by Dr. H. W. Kostmayer, Tulane Graduate School of Medicine, on "Some Non-Surgical Gynecological Procedures." The lecture was very greatly appreciated and enjoyed. Dr. Kostmayer made a place for himself in the hearts of those fortunate enough to hear him. It was possibly the best, most instructive, and illuminative lecture or paper ever delivered to the Society, greatly increasing our fund of knowledge.

Next meeting will be at Urania, March 3rd, 2:00 P. M. After adjournment, banquet at Domestic Science Hall, prepared by the Domestic Science teacher, Miss Ethel Whels. O Boy: that was some feed.

LAFAYETTE PARISH MEDICAL SOCIETY.

Members of the Lafayette Parish Medical Society met at the Terrace Hotel, Thursday night for a well attended banquet and the Annual Meeting of the Society, at which officers were elected and a delegate and alternate named to the Annual Convention of the State Medical Society, which will take place in New Orleans sometime in April.

Dr. E. E. Guilbeau, of Carencro, was elected President for the New Year; Dr. C. E. Hamilton, Lafayette, elected Vice-President; Dr. Harold G. F. Edwards, Lafayette, re-elected Secretary-Treasurer, and also elected delegate to the State Meeting, with Dr. F. R. Tolson, of Lafayette as alternate. Several important matters pertaining to the work and plans of the society were taken up during the evening, announcement of which is planned for a later day.

TERREBONNE PARISH MEDICAL SOCIETY.

Terrebonne Parish Medical Society 1927 officers are:

President—Dr. R. W. Collins, Houma, La.

Vice-President—Dr. I. I. St. Martin, Houma, La.

Secretary-Treasurer—Dr. P. E. Parker, Houma, La.

Delegate—Dr. P. E. Parker, Houma, La.

Alternate—Dr. R. W. Collins, Houma, La.

LAFOURCHE VALLEY MEDICAL SOCIETY.

The regular meeting of the Lafourche Valley Medical Society was held February 9th in Thibodaux, La. There was a splendid attendance of members from the Parishes of St. Mary, Terrebonne, Lafourche, Assumption and Ascension. Papers were read by Dr. T. I. St. Martin of Houma, and Dr. Frank T. Gouaux of Lockport.

The election of officers resulted as follows:

President—Dr. D. T. Martin, Donaldsonville, La.

Vice-President—Dr. Chas. J. Barker, Thibodaux, La.

Secretary - Treasurer — Dr. Chas. S. Roger, Napoleonville.

A wonderful supper concluded the evening program. The next meeting will take place in Donaldsonville.

Dr. A. F. Gates, one of the best known physicians of Tangipahoa Parish, died at Hammond, Louisiana, February 3rd, 1927. Dr. Gates was born September 30, 1872, and for the past twenty years or more resided in Hammond.

Prof. Aldo Castellani, head of the department of tropical medicine at Tulane, recently announced, upon his return from England, that arrangements had been made with the Ross Institute of London whereby an exchange of students between the two schools had been perfected. Students from Tulane who wish to carry on research in certain fields of tropical medicine will be sent to the Ross Institute and research workers from the Institute will come to Tulane. This wonderful piece of good fortune for Tulane men comes only through the fact that Prof. Castellani is also honorary director of the Ross Institute.

The Board of Administrators of the Tulane Educational Fund has announced the prompt erection of a new twelve-story Tulane Medical School and Hospital, to be located at the corner of Tulane Avenue and Howard Street, just across the way from Charity Hospital. The building will cost in excess of $1,500,000. The University Outpatient Department will most probably take over the hospital clinics of Charity. This plant, when completed, will unquestionably make the Tulane Medical School the outstanding institution of the South.

DOCTOR OCHSNER APPOINTED BY TULANE UNIVERSITY TO SUCCEED DOCTOR RUDOLPH MATAS.

Announcement has been made by the Board of Administrators of the Tulane Educational Fund of the appointment of Dr. Edward William Alton Ochsner, from the University of Wisconsin, Madison, Wisconsin, as Professor of Surgery and Head of the Department of Surgery in the Tulane School of Medicine, to succeed Dr. Rudolph Matas, who resigned last year, the resignation to become effective upon the appointment of his successor.

Following the resignation of Prof. Matas last year the General Education Board of the Rockefeller Foundation, upon the appeal of the Tulane Medical School authorities, made an annual appropriation of a considerable amount of money to permit the placing of the Department of Surgery more nearly on a full time basis and the appointment of Dr. Ochsner is the first step in putting this into effect.

Dr. Ochsner is a native of South Dakota. He is a graduate of the University of South Dakota, with the degree of Bachelor of Arts, and of the Washington University Medical School, St. Louis, with the degree of Doctor of Medicine. He also served as intern and as assistant resident in Barnes Hospital, St. Louis, under the eminent Dr. George Dock, who was Professor of Medicine at Tulane from 1908 to 1910. He served his surgical internship in Augustana Hospital, in Chicago, under the famous surgeon, the late Dr. A. J. Ochsner.

In addition to his training in America, Dr. Ochsner has had experience as surgical assistant under Professor Clairmont, famous surgeon in the University of Zurich, Switzerland, and further experience as surgical assistant under another famous surgeon, Prof. Schmieden, in the University of Frankfurt, Germany. He has also visited, for short periods, most of the prominent surgical clinics of Europe.

After returning from Europe, Dr. Ochsner engaged in practice in Chicago, during which time he was an instructor in surgery and in surgical

pathology in Northwestern University. This he gave up to go to the University of Wisconsin Medical School, as assistant Professor of Surgery, which position he holds at the present time.

Although only in his early thirties, Dr. Ochsner has already published more than a dozen articles dealing with surgical problems. He is deeply interested in research and in medical education, and is attracted to the position here by the great opportunities which New Orleans and Tulane offer for great accomplishment in the broad field of medicine. The rapid growth of the city, together with the progressive developments now taking place in the Tulane School of Medicine, and those contemplated in the near future, added to its existing prestige, insures that this will become one of the foremost centers for medical training and research in America.

Dr. Ochsner brings with him, to an unlimited field, the progressiveness of the westerner, the ambition, energy and vigor of his Swiss ancestry and an unusually favorable experience and training in America and Europe. He and his family will come to Tulane as soon as he can be released from his duties in Wisconsin University. In the meantime, he is in New Orleans now on a short visit acquainting himself with the work of the surgical department and of the school.

Just after the first of the year Dr. R. C. Lynch, the head of the Department of Oto-Laryngology of the Graduate School of Medicine of the Tulane University of Louisiana, attended the meeting of the Eastern Section of the Triological Society which met in Brooklyn, New York, under the Chairmanship of Dr. H. Arrowsmith, and on January 8th, the Council Meeting of the Triological Society in New York City.

While North Dr. Lynch was invited by the New England Oto-Laryngological Society to be their guest of honor at a reception and address the members at their annual meeting and dinner on January 10th, 1927, at the University Club, Boston, Mass., on which occasion he delivered an illustrated lecture on "Cancer of the Larynx."

The ovation received by Dr. Lynch at this meeting is sufficient evidence of the high esteem in which he is held by members of the Association.

Dr. Chas. J. Bloom, Professor of Pediatrics of the Graduate School of Medicine of Tulane University of Louisiana, addressed the members of the Rapides Parish Medical Society on "Adenopathies and the Allied Conditions of the Chest" at their meeting held at Alexandria, La., on Monday, February 7th, 1927.

Dr. Muir Bradburn, Assistant Professor of Clinical Surgery of the Graduate School of Medicine of Tulane University of Louisiana, addressed the members of the Washington Parish Medical Society on "Fracture Problems" at their meeting held at the Elizabeth Sullivan Memorial Hospital, Bogalusa, La., January 27th, 1927.

Dr. Noble M. Eberhart, of Chicago, has agreed to give a series of lectures on Diathermy beginning March 7th, 1927, at the Hutchinson Memorial, 1551 Canal Street, New Orleans, and physicians throughout the State or city, desirous of attending these lectures, are welcome.

The National Board of Review held its "Better Film Conference" at the Waldorf Astoria Jan. 27, and in a composite film entitled "Thirty Years of Motion Pictures" depicted many of the recent improvements in the film industry. Perhaps the most spectacular feature of this film was that portion which showed how motion pictures are being used in medical education.

A remarkable advance in the study of diseased organs attributable to this new application of motion pictures to medical subjects consists in the ability to take both still and motion pictures of the interior of various organs which have hitherto been inaccessible to such study. The device by which this is attainable is the invention of Dr. J. F. Montague of the University and Bellevue Hospital Medical College Clinic. It consists in a thin metal tube within which are placed both the lighting apparatus and a series of lenses resembling a microscope. The actual camera used is one of the type now so popular among amateur movie fans.

A very interesting application of the device is as follows: Motion pictures of the interior of certain organs such as the intestines are taken when the patient first comes to the hospital and similar pictures are taken at weekly intervals while the patient is under treatment. Then by patching these strips of film together and running them on a projecting machine the case can be seen to get well before your very eyes in but a fraction of the time actually required for the healing process. A special advantage of this can be readily understood since it furnishes an accurate record of the changes to be found and eliminates all guess work as to whether or not the patient has improved since the doctor no longer has to rely upon memory but by comparing the pictures can have accurate means of judging the changes. Dr. Montague predicts that within a few years there will be no medical school in America that

will remain unequipped with means for illustrating clinical work with the aid of motion pictures.

$100,000 OFFERED FOR CONQUEST OF CANCER.

Two prizes of $50,000 each have been offered by William Lawrence Saunders of New York for discoveries of the causation, prevention and cure of cancer. The offer was made on December 15, 1926, and will stand for three years. The donor expects to renew it, if necessary.

Mr. Saunders is Chairman of the Board of Directors of the Ingersoll-Rand Company, Director of the Federal Reserve Bank of New York and President of the United Engineering Company.

The decision upon which the awards will be made is to be reached by the American Society for the Control of Cancer and approved by the American Medical Association and the American College of Surgeons.

It is Mr. Saunders' idea that discoveries are not always made by experts and that "through the lure of a reward this serious problem might be solved through the genius of a lay mind, by chemists or through unorganized medical sources."

The offer of Mr. Saunders to the American Society for the Control of Cancer has not yet been formally acted upon by the Society, and it is impossible to say at this time what rules other than those proposed by Mr. Saunders will control the decisions. Information as to how persons who wish to present their discoveries for consideration should proceed will be announced later.

Mr. Saunders made his offer known through a letter to Dr. C. N. B. Camac of New York under date of December 13, 1926, and read by Dr. Camac at a dinner given in the interests of the American Society for the Control of Cancer by President Nicholas Murray Butler of Columbia University and Honorable Charles Evans Hughes.

NOTICE OF EXAMINATION FOR ENTRANCE INTO THE REGULAR CORPS OF THE UNITED STATES PUBLIC HEALTH SERVICE.

Examinations of candidates for entrance into the Regular Corps of the U. S. Public Health Service will be held at the following named places on the dates specified:

At Washington, D. C.	May 2, 1927
At Chicago, Ill.	May 2, 1927
At New Orleans, La.	May 2, 1927
At San Francisco, Cal.	May 2, 1927

Candidates must be not less than twenty-three nor more than thirty-two years of age, and they must have been graduated in medicine at some reputable medical college, and have had one year's hospital experience or two years' professional practice. They must pass satisfactorily, oral, written, and clinical tests before a board of medical officers and undergo a physical examination.

Successful candidates will be recommended for appointment by the President, with the advice and consent of the Senate.

Requests for information or permission to take this examination should be addressed to the Surgeon General, U. S. Public Health Service, Washington, D. C.

AMERICAN BOARD OF OTOLARYNGOLOGY.

The following examination dates have been assigned by the American Board of Otolaryngology;

Washington, D. C.—Episcopal Eye, Ear and Throat Hospital, Monday, May 16, 1927, at 9 o'clock.

Spokane, Washington—Saturday, June 4, 1927, at 9 o'clock.

UNITED STATES PUBLIC HEALTH SERVICE.

The Weekly Public Health Reports of the United States Public Health Service are now available to all persons in the United States and its possessions, Canada, Cuba, and Mexico, for the nominal subscription of $1.50 per year, it was announced in the current issue of the official bulletin of the Post Office Department.

The announcement states that these reports will be sent with postage prepaid to each subscriber, and represents an innovation by the Public Health Service further to increase knowledge about public health and sanitation. These reports contain information as to the world prevalence of disease, and each issue has special articles by experts on sanitation.

Subscriptions should be accompanied by money orders, and sent to the Superintendent of Documents, Government Printing Office, Washington, D. C.

VACANCIES IN VETERANS' HOSPITALS.

Physiotherapy and Occupational Therapy Aides Urgently Needed.

Washington, D. C., February —, 1927.—The United States Civil Service Commission states

that a number of hospitals of the Veterans' Bureau are solely in need of occupational therapy aides in arts and crafts, agriculture, and trades and industrial occupations, and also physiotherapy aides, pupil aides, and assistants. These workers are needed in considerable numbers in connection with the rehabilitation of disabled soldiers and sailors.

It is stated that examinations for these positions are now open. Full information and application blanks may be obtained from the United States Civil Service Commission, Washington, D. C., or from the secretary of the United States Civil Service Board at the post office in any city.

FOREIGN CRUISE FOR DOCTORS.

The success of the Vandyck Cruise to the South American countries, arranged for the Fellows of the American College of Surgeons and their families in the spring of 1923, has brought forth many inquiries as to when and how such a visit may be repeated. These queries have culminated in a plan by Thos. Cook and Son, who conducted the Vandyck Cruise so satisfactorily, for a much more comprehensive trip for the early spring of 1928, which is late summer in the southern latitude and an ideal time to visit that part of the world.

The contemplated cruise will include the east coast of South America, South Africa and East Africa, the Mediterranean borderlands, and if desired Northern Europe. The plans include general sightseeing on shore, with every facility for covering all points of interest that are usually accessible to travellers.

There will be a series of interesting scientific meetings in the important medical centers, visits to the hospitals and medical schools, and provision for personal freedom and ample time for sightseeing and entertainments. It is anticipated that our people will be entertained by the government officials in the same interesting manner as were the Vandyck passengers.

Every precaution has been taken to obtain a ship which is new, the SS. Volendam, which has every facility for South American and South African de luxe passenger service. The ship will be reserved for our exclusive use, and if desired may be used by the passengers as a hotel while in port without the extra expense. There will be plenty of room, as freight, second-class and steerage services will be precluded.

Each member of the College may extend to one other couple the privileges of the cruise. Deck plans and other available information regarding the cruise will be sent to you upon request, either from the American College of Surgeons, or Thos. Cook & Son, 585 Fifth Avenue, New York City.

Dr. William Benhaw Snow, Editor of Physical Therapeutics, New York City, pioneer teacher of Physiotherapy, will be the honor guest at the meeting of the Western Physiotherapy Association and School, held in Kansas City, April 4 to 9. Dr. Snow will hold a clinic on Thursday, and at the annual banquet will speak on "Static Electricity in the Treatment of Pelvic Diseases."

DEATH: Henry C. Baucum, Haynesville, Louisiana; Louisville (Ky.) Medical College, 1904; member of Louisiana State Medical Society; aged 49; died December 17, 1926, of angina pectoris.

DEATH: Otis A. Biggs, Grayson, Louisiana; Kentucky School of Medicine, Louisville, 1902; past president of the Caldwell Parish Medical Society; aged 52; died January 23 of cerebral hemorrhage.

DEATH: Henry Buck, Evergreen, Louisiana; Louisville (Ky.) Medical College, 1900; member of the Louisiana State Medical Society; aged 48; died suddenly January 5.

DEATH: John Davidson Gladney, Homer, Louisiana, Tulane University of Louisiana School of Medicine, New Orleans, 1920; aged 34; died Dec. 22, 1926, of chronic nephritis.

DEATH: John Luther Wilson, Alexandria, Louisiana; Vanderbilt University School of Medicine, Nashville, Tennessee, 1889; President Rapides Parish Board of Health, and for several years member of the City Board of Health; former parish coroner; on the staff of the Baptist Hospital and one of the founders; and at one time on the staff of the Alexandria Sanatorium; aged 57; died Nov. 28, 1926, of dilatation of the heart.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

J. S. Ullman, M. D., Associate Editor.

Dr. T. K. McGhee of Fernwood was killed by a fast train of the Illinois Central Railroad January 24th on the crossing in Fernwood. He was buried in Brookhaven. Dr. McGhee was surgeon for the Enochs Lumber Company at Fernwood. Twenty-two years ago Dr. Bethea was killed at this same crossing.

Dr. McGhee's death is a great loss to the profession of this State and to the State Medical Association. The Journal offers its heartfelt sympathy to the bereaved family.

At the recent meeting of the Harrison Stone Counties Medical Society the following officers were elected for 1927:

President, Dr. J. C. Jones, Gulfport.

Vice-president, Harrison County, A. F. Caraway, Gulfport.

Vice-president, Stone County, F. H. Robertson, Wiggins.

Secretary & Treasurer, Dr. J. Williams, Gulfport.

Delegate, Harrison County, D. G. Rafferty, Pass Christian.

Delegate, Stone County, S. C. Culpepper, Wiggins.

Censor, Charles LeBaron, Gulfport.

The Woman's Auxiliary of the Harrison-Stone Counties Medical Society recently entertained Mrs. Franklin Paul Gengenbach of Denver, Colorado, President of the Auxiliary of the American Medical Association, at the home of Dr. and Mrs. J. Williams at Long Beach.

The Central Medical Society elected the following officers for the year 1927:

President, E. H. Galloway, Jackson.

Secretary-Treasurer, R. W. Hall, Jackson.

Vice-presidents: Hinds County, C. R. Stingley, Jackson; Yazoo County, W. E. Noblin, Yazoo City; Rankin County, W. H. Watson, Brandon; Simpson County, A. E. Kenneday, Magee; Madison County, J. H. Howell, Canton.

Delegates: Hinds County, R. W. Hall; Yazoo County, W. E. Noblin; Rankin County, W. W. Davis; Simpson County, E. L. Walker; Madison County, C. E. Bell.

Board of Directors. H. R. Shands, Jackson; John Darrington, Jackson; J. W. Barksdale, Jackson; George S. Atkins, Jackson; J. P. Wall, Jackson; E. H. Galloway, Jackson, and R. W. Hall, Jackson.

The Central Medical Society at its regular meeting, January 18, presented the following program:

"Scarlet Fever".....D. T. Langston
"Bronchial Asthma".....F. E. Rehfeldt
"Medical Ethics".....W. E. Noblin
"Report of a Case of Tularaemia"
G. W. F. Rembert

Dr. Julius Crisler has returned from a week's visit to Texas.

The Panola County Medical Society is now affiliated with the North Mississippi Six County Medical Society, composed of the following counties: Benton, Lafayette, Marshall, Tippah, Union, Yalobusha, and Panola, the secretary of which is Dr. Ira B. Seale, Holly Springs.

The Issaquena-Sharkey-Warren Counties Medical Society held its regular monthly meeting at Vicksburg, February 8th. The program was as follows:

"Osgood-Schlatter Disease".....Dr. A. Street
"Essential Hypertension".....Dr. H. S. Goodman

The President announced the committees on arrangement for the coming meeting of the State Medical Association convention in Vicksburg, May 10-11-12, 1927. Dr. E. F. Howard reported for his committee for a constitution and by-laws for the new society.

Dr. Henry Boswell attended a meeting of the Board of Directors of the National Tuberculosis Association on January 29, at Memphis. This is the first southern meeting of the Board of Directors.

Mr. J. Marshall, Consulting Architect of the National Tuberculosis Association, was a recent visitor at Sanatorium.

Dr. J. H. Metzer, Superintendent of New Mexico Cottage Sanatorium at Silver City, New Mexico, spent several hours at Sanatorium on Sunday, January 30. New Mexico Cottage Sanatorium has the distinction of being the oldest sanatorium in the entire Southwest.

Dr. May F. Jones is conducting a class at Sanatorium every Monday night from six to seven. This class enables patients who are interested to familiarize themselves with various phases of tuberculosis. During the week patients are invited to drop questions into a box placed in an accessible place. Each class night the various questions are answered and round table discussion is invited. The success of this venture is attested to by the fact that the class has grown from ten to thirty members in a few weeks and shows probability of yet greater increase.

Through the courtesy of the Board of Trustees of the Mississippi State Tuberculosis Sanatorium, a special invitation is issued to all practising physicians of Mississippi to come to Sanatorium and take special training in Diagnosis of Diseases of the Chest. Dr. C. L. Simmons of Hazelhurst is at Sanatorium at this time availing himself of this opportunity.

The Mississippi Tuberculosis Association has issued its report for 1926 on the Children's Health Camp at Biloxi.

"The second season of the Mississippi Children's Health Camp at Biloxi, Mississippi, embraced the months of July and August.

"The original site of last year was again made use of, the camp consisting of seven 16-foot pyramidal tents, one being used as a dining room, the others as sleeping quarters. All living quarters were screened, giving protection against insects. The kitchen erected last year was used this season. In addition to the original equipment, one portable cottage of one room, about 7x10 feet, well screened, was received from Poplarville, Mississippi, and set up and used at the camp.

"The qualifications for entrance of the children remained the same as last year. The age period was from 7 to 12 years, no children being admitted who had contagious diseases or correctable defects at the time of admission. All children were, however, in need of the general upbuilding of their physical condition and were all under weight.

"The personnel of the Camp consisted of one medical officer in charge, a matron, a nurse, a man for general utility work, a supervisor of swimming and other play, and two cooks.

"During July there were 25 children registered at the Camp, 22 remaining the full time. On the first of August 9 new children joined, 7 being retained from the July group, making a total of 16 children for the second month and a grand total of 38.

"In general, the aim of the Camp was to improve the physical condition of the children by educational means, consisting of proper diets, adequate rest periods, supervised play, emphasizing environmental sanitation.

"Cod Liver Oil was given systematically and proved very beneficial particularly in its effect on the initial gain in weight. Children not receiving it at the beginning did not start to gain as soon as those to whom it was administered from the outset.

"It was observed that children who had had tonsilectomies six months or more prior to their entrance to Camp did much better than those whose tonsils had been removed just previous to coming to the Camp.

"The average weights gained by weeks, etc., were as follows:

4 weeks: 24 children, 97½ lbs. Average gain 4½ lbs. Highest gain 6½ lbs.

5 weeks: 1 child, 5 lbs.

6 weeks: 1 child, 5 lbs.

7 weeks: 2 children, 11 lbs. Average gain 5½ lbs. Highest gain 6 lbs.

8 weeks: 2 children, 18½ lbs. Average gain 9¼ lbs. Highest gain 10½ lbs.

Total no. lbs. gained: 137 lbs. Average gain in 4 weeks time. 4 lbs. Highest gain in 4 weeks time: 6½ lbs.

Number of children gaining average weight for age and height, 3.

Number children gaining within one pound of normal, 3.

Number children gaining to within 6% of normal, 9.

"This tabulation would seem to indicate that there are certain points in favor of the children remaining longer than four weeks at the Camp.

"Out of 36 children in Camp, 9 gained within 6% of their normal weight and five of these nine were children whose stay at the Camp was six weeks or more.

"Of these 5 children, 3 made their greatest percentage of gain after the fourth week. Of 3 children who gained the average weight for their age, 2 of them were in this group of 5 while one other, but 3 pounds underweight, easily made the gain in 4 weeks. The other two children gained respectively 8 and 10½ pounds and went over the top.

"The total fund for operation of the Health Camp was as follows:

Amount donated	$1705.50
Paid by Mississippi Tuberculosis Association	175.00
Donation by Dr. Frederickson, paid as expenses of Camp	50.00
Total	$1930.50

"The per capita cost per child for maintenance was $50.88.

"In the above amounts are included all expenses entailed for the erection and demolition of the Camp.

"These expenses are somewhat higher than they ordinarily would be if all the equipment were owned by the Camp, which if this were the case would eliminate all freight and other transportation charges, and the payment of labor for erecting and demolishing the Camp."

The Tate County Medical Society announces the following officers for the year 1927:

President, William Robert Gilbert, Tyre.

Vice-president, W. D. Smith, Sanatobia.

Secretary and Treasurer, J. Sidney Eason, Coldwater.

DEATH: Oliver B. Quin, McComb, Mississippi: Medical Department of Tulane University of Louisiana, New Orleans, 1879; aged 69; died January 19 of carcinoma of the throat.

DEATH: Nolan Stewart, Jackson, Mississippi: University of Nashville Medical Department, 1886; member Mississippi State Medical Association; served during World War; connected with U. S. Veterans' Bureau; aged 63; died December 18, 1926, at U. S. Veterans' Bureau Hospital No. 74, Gulfport, of chronic myocarditis and dilatation of the heart.

Miss Elizabeth Kimmons, of Jackson, Miss., a graduate in oral hygiene of the Forsyth Dental Institute, Boston, Mass., was employed by the State Board of Health as oral hygienist for work in the Laurel city schools on February 10th. Miss Kimmons is a graduate of the University of Mississippi, Class of 1925, and had done secretarial work for the State Board of Health prior to taking up the study of oral hygiene.

Miss Emily McQueen, of Meridian, Miss., who taught in the public schools of that city for a number of years, received her certificate as oral hygienist at the Forsyth Dental Institute, Boston, Mass., recently, and has been employed as oral hygienist for the city schools of Meridian. Program began on February 14th.

Mr. H. Mack Fulgham, a lawyer of Jackson, Miss., was employed by the State Board of Health on December 1st as Field Deputy in the Bureau of Vital Statistics. The State Board of Health did this after a test by the Bureau of the Census in which it was found that less than 90% of the births and deaths of the state were being reported and it was realized that the state would soon be thrown out of the U. S. Registration Area for Births and Deaths, which would mean that Mississippi statistics would not be recognized anywhere. Statistics from any state not within the Registration Area are not accepted as being reliable. Mr. Fulgham was employed by the Census Bureau seven years prior to accepting this work with the State Board of Health. He holds a literary and law degree from the University of Mississippi; is a native of this state, tactful and resourceful, yet firm in measuring up to his responsibility as enforcing officer for the Bureau of Vital Statistics. Incidentally, it may be stated that he volunteered his services to the State Board of Health for the month of December without salary so much was he interested in seeing the state remain within the Registration Area for Births and Deaths.

Dr. D. S. Johnson, who has been acting in the capacity of assistant to Dr. J. B. Black, Health Officer of Hinds County, for the past year, was assigned by the State Board of Health to the Sanatorium for a three months intensive study of the diagnosis of tuberculosis preparatory to becoming full-time Health Officer of Greene County.

BOOK REVIEWS

Prenatal Care: By Ralph W. Lobenstine, M. D., F. A. C. S., and Harold C. Bailey, M. D., F. A. C. S. New York: D. Appleton & Co. 1926. (Clinical Pediatrics, v. 1.)

To many reviewers the appearance of another "system" gives rise to a distinct feeling of ennui, based on the firm conviction that we have with us enough "systems." Some of the older, more cumbersome systems are falling into disfavor because of the mass of material that one must wade through before finding the essence of what one is looking for. As a consequence, the publishing of a series of short monographs should meet with approval, provided the contributors are of recognized authority. The present series gives promise of meeting this condition.

In Volume 1 of Clinical Pediatrics we have presented in most readable fashion a complete discussion of prenatal care, beginning with the emphasis for the need of prenatal care as shown by mortality and morbidity and the prevention of fetal death. The essentials of prenatal care are dealt with in a separate chapter, as are syphilis in pregnancy, infections during labor and in the puerperal period, induction of premature labor, intrapartum birth injuries, shock following accidents of labor, early neonatal management and nursing and prenatal care from the Public Health standpoint.

The reviewer rejoices to see the care of the infant treated with proper respect and not as a bi-product of obstetrics.

L. VON MEYSENBUG, M. D.

Disorders of the Nervous System in Childhood: By Bronson C. Crothers, M. D. New York: D. Appleton & Co. 1926. (Clinical Pediatrics, vol. 5.)

Here we have a comprehensive monograph of the subject arranged in logical order, beginning with the anatomical and physiological background of diseases of the nervous system. Of especial value are the consideration of the effect of delivery upon the nervous system, the effect of infection upon the nervous system and the cerebral palsies. The volume comprises some 240 pages with many excellent illustrations.

L. VON MEYSENBUG, M. D.

The Newborn: Physiology and Care. By Clifford G. Grulee, A. M., M. D., L.L. D., and Barnet E. Bonor, B. S., M. D. New York: D. Appleton & Co. 1926. (Clinical Pediatrics, v. 2.)

"This work is a unit in the series published by D. Appleton & Co. as a presentation of the subject of pediatrics to the general profession." It is written chiefly for the general practitioner who sees by far the largest number of the newborn.

The first two chapters are given to a discussion of the normal newborn, its weight, body temperature and body proportions; and also to its mortality and the characteristics of its diseases. The next six chapters are on the anatomy and physiology of the different systems of the newborn.

Chapter X is on the care of the expectant mother and the newborn and is full of practical help, giving in detail methods of caring for the baby's eyes, of giving its bath, of administering fluids and foods. It suggests advice to be given to the new mother.

Chapter XI is on breast feeding and gives not only the needs of breast feeding but also the best method of making every mother able to nurse her own baby. Chapter XII is on prematurity and congenital debility and gives in great detail the method of caring for the premature child. The next chapters discuss asphyxia neonatorum, cyanosis, transitory fever, icterus neonatorum and haemorrhagic disease of the newborn, and give the etiology or theories of the etiology and treatments of these diseases.

RENA CRAWFORD, M. D.

The Newborn: Diseases and Abnormalities. By Clifford G. Grulee, A. M., M. D., L.L. D., and Barnet E. Bonar, B. S., M. D. New York: D. Appleton & Co. 1926. (Clinical Pediatrics, v. 3.)

In this book we have a full and complete treatise on the diseases and abnormalities of the newborn. Much work has recently been done on this subject but most of it has been published in current magazines. These volumes will then "fill a long felt need."

They are written in a pleasing, easily readable style. They will be invaluable as reference books. They will be of great aid to the general practitioner, the obstetrician and to the pediatrician.

RENA CRAWFORD, M. D.

Slit Light Microscopy of the Living Eye: By F. Ed. Koby, M. D. Philadelphia: P. Blakiston's Son & Co. 1925.

Unfortunately, every new subject must be hard before it can be easy, complex before it can be

simple; simplicity is the last milestone on the road to understanding. This is especially true of slit light or, more popularly, bio-microscopy, which can be learned from a book alone about as well as swimming. Practice and more practice are the first and last essentials to its successful application.

The slit light on which our present bio-microscopy largely depends is a small, intensely brilliant and penetrating rectangle of light which is played upon the anterior eyeball. The tissue thus illuminated is viewed by direct or reflected light with a binocular microscope capable of magnification varying from 10 to 100 diameters. In its present evolution the slit light and corneal microscope is a clumsy and costly affair which requires practically a separate room for its use, and which is of practical value in the understanding of probably one in every five hundred patients. Its grandchild in evolution will probably be a small, portable and simple hand instrument capable of more general use.

Dr. Koby has abstracted the extensive literature on the subject and combined it with his extensive teaching experience in an effort to aid the beginner in obtaining a technical knowledge of the subject. After describing the various slit lamps and the methods of examination usually employed, he takes up at some length the phenomena of light reflection. The various parts of the anterior eye are then considered and the normal and pathological findings with bio-microscopy are described in detail.

From a practical standpoint bio-microscopy often facilities a recognition of uveal disease earlier than is otherwise possible and occasionally affords a clue to the underlying cause. Its findings occasionally help decide cataract operability.

The detailed table of contents and index as well as the elaborate bibliography make this a valuable addition, especially to the library of the beginner in bio-microscopy, which promises, in the future, to be of increasing practical value.

CHARLES A. BAHN, M. D.

Delusion and Beliefs: By C. Macfiie Campbell, M. D. Cambridge: Harvard Univ. Press. 1926.

This monograph by Dr. Campbell is distinctly worthwhile, as would be expected in anything that he writes. It can be read with profit not only by psychiatrists and psychologists, but by physicians as a whole and even laymen, as it is simply written.

From a mental-hygiene standpoint, it gives a rather clear insight into many things, and will help most of us not only in understanding ourselves but in understanding our fellows. To psychiatrists, it is a warning against the formation of opinions without giving due weight to the patient's point of view. And for those of us of the South who so frequently come in contact with the colored man, it is particularly valuable, in that we always have to consider, in judging this class of patient, the various beliefs and superstitions to which they still cling regardless of education and environment. And, frequently, we find that ideas which would cause us to arrive at a diagnosis in an educated white person are nothing more nor less than an expression of those beliefs.

E. McC. CONNELY, M. D.

The Modern Treatment of Hemorrhoids: By Joseph Franklin Montague, M. D., F. A. C. S. Philadelphia and London: J. B. Lippincott Co. 1926.

In giving this monograph to the profession Dr. Montague has rendered a valuable service. Hemorrhoids, especially their treatment, is one of the least understood of the more common diseases. This is proven by the frequency of complications and of occurrences following this rather simple surgical procedure; and is an important reason why his book should be widely read.

The subject is presented to the reader in a clear, concise manner, written in pleasant style, and one cannot fail but be impressed with the author's thorough knowledge of his subject, as expressed by the forceful and systematic way in which he handles it. Beginning with Definitions and Synonyms, then Signs and Symptoms, the Pathology and Examination and Diagnosis, the author carries you along to discuss most thoroughly the etiology and treatment of hemorrhoids. The different methods so clearly described are made still clearer, by many good illustrations. The last chapter, dealing with "Popular Fallacies Concerning Hemorrhoids" is full of aphorisms and in itself is worth the price of the book. The author's purpose of bringing about a better understanding of the nature, causes and treatment of hemorrhoids, will be achieved in an admirable way by a careful reading of his monograph.

O. C. CASSEGRAIN, M. D.

Preventive Pediatrics: By Borden S. Veeder, M. D. New York-London: D. Appleton & Company. 1926. (Clinical Pediatrics, v. 4.)

In this volume the subject of Preventive Pediatrics has been divided into the following sections:

1. The Growth and Development of the Child;

2. Prevention of Disease; 3. Methods.

The book is primarily intended for the general practitioner and not for the specialist. It is evident with the practitioner in mind that the author has briefly sketched many of the chapters. Perhaps the most interesting chapter in the book is the one on The Field of Preventive Pediatrics. It is here that the author gives the reader many new ideas in Pediatrics. The author discusses at length the differences between the subject of Pediatrics as such, and preventive Pediatrics. He states that Pediatrics is the study of disease itself, while preventive Pediatrics is a study of the child, and it is by this agency that we study the child in his normal growth and development. The results of this latter thought are well expressed by the author in the following sentences: "We have learned by studying the child that no small part of the definitions of normal health and development have their origin not in biochemical and biological causes, but in habits, mental reactions, and psychological conflicts. We venture the prophecy that this last field is on the threshold of being opened up and will write the next important chapter in the scientific development of Pediatrics." The subject of child hygiene is brought into discussion, and it is here that the author makes clear the differences between preventive Pediatrics and child hygiene, a subject which is very often confused. Child hygiene is the method of utilizing, or applying some of the knowledge of Pediatrics.

In his summary, the author states, "Knowledge that will enable the child to be well born, to come into the world strong and healthy, to thrive lustily and without halt during infancy, to develop and grow in a normal way during childhood, to be able physically and mentally to acquire a sound education, to acquire good habits of living and avoid bad ones, to avoid psychological abnormalities so that the child adjusts himself to his social environment and pass through the difficult periods of puberty and adolescence, to prevent ill health through the making of good health, to prevent by scientific measures so far as we are able infectious diseases of childhood—these are the aims of preventive Pediatrics—it is in its practice the physician should be guide and mentor." What the author really insists upon is that in order to practice Pediatrics intelligently you must have not only a knowledge of disease in childhood, but a knowledge of the child and its development.

The remainder of the book takes up the methods by which the above may be successfully carried out. As these methods are familiar to most of us, no comment is made on this subject. It is felt this book is worthwhile reading and offers many suggestion for bettering Pediatrics.

JULIAN GRAUBARTH, M. D.

Cannula Implants and Review of Implantation Technics in Esthetic Surgery: By Charles Conrad Miller, M. D. Chicago: The Oak Press. 1926.

Dr. Miller describes in this small volume a method of implantation of rubber and gutta percha in the tissues with the aid of cannulae. He claims that by this technic open incisions in cosmetic surgery are avoided and that a minimum of trauma and bleeding results. Various methods of implantation and the use of a great variety of materials in esthetic surgery are reviewed. The author does not claim to have solved all of the different problems connected with this class of surgery but his effort is an addition to the subject matter.

FRANCIS M. MUNSON, M. D.

PUBLICATIONS RECEIVED.

Oxford University press, New York: 1. "Studies in Intracranial Physiology and Surgery," by Harvey Cushing, M. D. 2. "Surgery of Gastro-Duodenal Ulceration," by Charles A. Pannett, B. Sc. M. D. 3. "Histology of the More Important Human Endocrine Organs," by Eugenia R. A. Cooper. 4. "Treatment of the Acute Abdomen," by Zachary Cope, B. A., M. D., M. S., Lond., F. R. C. S., Eng. 5. "Chemical and Physiological Properties of the Internal Secretions," by E. C. Dodds, Ph. D., B. Sc., M. D., B. S., and F. Dickens, M. A., Ph. D. 6. "Neuritis and Neuralgia," by Wilfred Harris, M. D., Cantab., F. R. C. P., Lond. 7. "Obesity," by Leonard Williams, M. D. 8. "Pathology and Treatment of Diabetes," by George Graham, M. A., M. D., F. R. C. P.

W. B. Saunders Company, Philadelphia and London: "A Primer for Diabetic Patients," by Russell M. Wilder, M. D.

Paul B. Hoeber, New York: "Hewat's Examination of the Urine," revised and enlarged, by G. L. Malcolm-Smith, M. B., Ch. B., F. R. C. P. "A Terminology of Disease," by Adrian V. S. Lambert, M. D.

D. Appleton & Company, New York, London: "Symptom Diagnosis," by Wilfred M. Barton, A. M., M. D., F. A. C. P.

C. V. Mosby Company, St. Louis: "A Manual in Preliminary Dietetics," by Maude A. Perry, B. Sc. "Hospital Housekeeping and Sanitation," by Nora P. Hurst, R. N.

REPRINTS.

"Arachnidism," by Emil Bogen, M. D., Los Angeles.

"Annual Report of the Library Committee of the College of Physicians of Philadelphia," for the year 1926.